AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

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Spacing Plants in the Landscape Plan
What's New in War Control Orders
Yellow Flowers for Small Rock Garden
Charlie Chestnut

AMERICAN NURSERYMAN

F. R. KILNER, Editor

Editorial

PENNY-WISE ECONOMY.

Bidders on the landscaping of several war housing projects have recently been informed that the planting of all trees and shrubs has been eliminated on several of the jobs. This, it is reported, has been done in an effort to economize because the bids amounted to more than the estimates. How poor is this method of economy is expressed by a prominent nurseryman in the following comments:

"It seems that those in authority are following the usual procedure of a great many architects and builders in picking on the landscaping first whenever it is necessary to cut costs. The assumption that trees and shrubbery should be classed as first of so-called nonessentials to be eliminated in order to cut costs seems to us to be unfair. Certainly there must be other factors involved in the cost of these projects which could be curtailed or limited.

"For instance, we note that many projects have an extremely large area devoted to a baseball field. While we are not in the least against baseball as a recreation, it cannot be denied that the cost of purchasing this extra land and the grading and preparation necessary would amount to a great deal more money than the cost of the meager planting of shrubs and trees usually specified.

"As a matter of fact, the amount of money saved by the elimination of planting is comparatively small. Only about one-fourth to one-fifth of the total cost of landscaping of most of these projects involves planting, the balance being for seeding and sodding.

"While we realize that the purpose of these projects is in connection with the war effort and therefore of a temporary nature, we also feel that buildings constructed of concrete block are by no means temporary and will, no doubt, be in use after the war. If such is the case, these buildings should have at least a minimum of planting to be habitable dwellings.

"We feel that this is a matter of extreme importance to the entire nursery industry. This question involves a product which is in no way a critical material in the war effort and also involves an industry that should be kept alive during these troublesome times, as it will certainly be an important factor after the war in rehabilitating the morale of people weary of destruction and death."

SALVAGE THE SCRAP.

Though every nurseryman does not have the failing of Emil that Charlie Chestnut describes in this issue, of clinging to worn-out and useless equipment, there is usually an assortment of odds and ends of old tools and machinery about the place. Some of it has been saved in anticipation of the need of some repair part or the possibility that it will provide material for makeshift mending in an emergency. But after a time the old scrap ceases to have value even for those purposes, but still it lies around, perhaps forgotten in a hidden corner.

This is the time for someone in authority in your organization, someone who is qualified to make a quick decision one way or the other, to go over the old metal around your place and turn in to the local junk dealer whatever can be spared for scrap to be manufactured into war equipment. There is a definite and urgent need of it.

A good rule to follow is that if the equipment has not been used the past season and you do not see a definite use for it in the season ahead, probably it is useless. If you have machinery that is still usable, maybe it should be turned over to a local farm machinery dealer to sell; someone may be wanting it.

But if you have machinery or tools that are no good to you or anyone else, now is the time to dispose of them with the feeling that you can get definite value out of them. By making a point to turn this material over to the junk dealer for scrap, you will be making as definite a contribution to victory as in any other of your local war efforts.

YOUR RED CROSS.

For more than a score of years, people in all walks of life have been making annual contributions to support the far-flung work of the American Red Cross. The little Red Cross stickers in countless windows were visual evidence of the nation-wide support of, and confidence in, the Red Cross.

During 1942 more than 1,000,000 men and women made a new contact with the Red Cross. They were those who each contributed a portion of their blood to the Red Cross blood donor service. Collected at the request of the army and navy, this blood is processed into plasma and serum albumin, and today it is being used on the world's battlefields, helping to give our wounded a much better chance at life.

In the lighter side of the picture, the Red Cross has established some 150 servicemen's clubs, rest homes and recreation centers abroad where our soldiers and sailors, taking a respite from their duties, find everything they might desire for a good time.

With them also, at home and abroad, in camp and hospital, are Red Cross representatives, men and women of training and experience, ready to advise and counsel and help unravel any of the many personal and family problems to which soldier and civilian alike are subject.

Despite all the work of the Red Cross on behalf of the servicemen, it continues its activities at home. Instruction in first aid, home nursing and nutrition, assistance to families of servicemen, work in hospitals and in other fields of public welfare, disaster preparedness and relief, and a host of similar activities, keep the organization busier than it ever has been before.

All of which points to one fact: The Red Cross is yours in a deep and personal sense. It is doing the things you yourself would do if you had the opportunity.

To do this costs money. This month the Red Cross is raising its 1943 war fund, the goal of which is $125,000,000. Every dollar you contribute will be spent as wisely as you would spend it. And you have the assurance that it will help save the lives of our boys, help maintain their morale, alleviate suffering in many parts of the world and build a stronger and firmer civilian front.

WAR CAN'T STOP ROSES.

Held in the fourth year of the war, the annual meeting of the National Rose Society of Great Britain had a larger attendance than usual, and the secretary's report showed 516 new members joined the society during the past year, as contrasted with the previous year's gain of 115. The revenue from subscriptions amounted to 4,649 pounds. The Horticultural Trade Journal, London, reporting these facts, quite properly asks: "Is further proof required of the intense love that the British people have for flowers?"

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Forms for the April 1 issue open till March 25.

"Undoubtedly you know the merits of your publication, but I would like to say that the response to our 2-inch ad has been tremendous, from just one insertion. With shortages, priorities and governmental quotas our little shop is right out straight trying to keep up with the orders from the good people who read American Nurseryman. One thing which amazes us is the nonchalance with which strangers send us their checks, money orders and cash without so much as asking for a reference or a catalogue. Advertising with you must be equivalent to a Dun & Bradstreet rating."

Very truly yours,
Fuller Wheel Hoe Co.,
South Hamilton, Mass.

Spacing Plants in the Landscape Plan

By J. Lee Brown

Most nurserymen have been handling plant material for a lifetime, more or less, and are thoroughly familiar with the growth habits and requirements of a wide range of species. However, through familiarity we are likely to take for granted many things we were particularly careful about during the earlier years of our experience. We give a certain species a definite spacing through habit instead of analyzing the factors which affect desirable spacing.

Factors Affecting Spacing.

In order to insure ourselves from time to time that we are getting the most desirable spacing, it is well that we stop to consider some of these factors:

1. Spread of mature plant.—This is the most obvious of the factors to be treated. In many cases it is the one which eventually will determine the spacing of plants. However, it is important to adjust the spacing in accordance with the average spread rather than the maximum or minimum. For instance, Spiraea vanhouttei has been known to grow to a height and spread of ten feet. Yet it would be undesirable to provide this maximum spacing, as the plant seldom reaches that size.

2. Use plant is to serve.—(a) Individual specimen: If a plant is to be used as a special feature in a garden view because of its unique character, it should be given the maximum spacing in a shrub border or should even be set out into the lawn in order that it may be permitted to grow into its characteristic beauty. (b) Mass foliage: If it is the purpose to screen out an undesirable view or to provide a background for flowers or some garden feature, the spacing should be slightly less than the mature spread of the plant selected. In other words, the plant should be spaced densely enough to provide a mingling of foliage but widely enough to insure adequate root space. Methods of arranging plants to provide a maximum foliage density without undue crowding will be described shortly.

There are a number of other special uses which plants may serve and which will affect spacing to a certain extent. However, the ones listed above are the most significant ones.

3. Rate of growth.—Fast-growing species such as privet and forsythia should be given the maximum spacing in all cases, as they will fill out to mature size within a relatively short time. Slow-growing species may be spaced only slightly closer together than the ultimate spread. However, it is often better to give these plants the maximum spacing and add temporary interplantings if there is assurance that the temporary plants will be removed at the proper time.

4. Time allowed for effect.—In the design of parks and other public grounds where a long-range planting program is to be carried out, the maximum spacing for all plants is desirable. However, all nurserymen have been asked to meet the need for an immediate or early effect. This is particularly true in the case of the residential subdivision which is built and planted for immediate sale. One method of handling this problem is to use a predominance of rapid-growing species. If slower-growing types are used, it is better to use the maximum spacing and add temporary plants.

5. Size of stock used.—It is a common practice in the interest of economy to use small plants, as seedlings, rooted cuttings or lining-out stock. However, if this practice makes it necessary to plant much closer together than normally, its economy may be questioned in some cases, and the danger of ultimate crowding is obvious. If plants must be placed closely together because of immature size, it must be assured that thinning will be carried out at the right time. Ordinarily, it is much better to use stock of a size which will reach maturity within a reasonable length of time and to give the plants their permanent spacing.

6. Space available for bed.—Frequently, the designer must place shrubs in a narrow bed adjoined on one side by a building and on the other by a sidewalk or some other artificial limit. Under such a condition one is tempted to crowd the plants too closely together. This can be done to a certain extent, but care should be taken not to crowd a plant closer than its normal spacing range. If there appears to be danger of this, a smaller species should be selected.

7. Growth conditions.—Poor soil, severe climate or any other growth-limiting factor may decrease the average size of a plant. For instance, Pfitzer juniper may grow to a spread of from nine to twelve feet under favorable conditions. However, it is usually limited to nine feet maximum spread under average conditions of growth. Therefore, as the spacing list indicates, the Pfitzer juniper should not be spaced more widely than nine feet and may be spaced as closely as six feet under poor growing conditions. It should not be understood, however, that all plants should be spaced closely because of poor growing conditions. For example, street trees placed in the usually poor soil along the curb and limited in growth area between the curb and sidewalk should be spaced even more widely than in lawn areas because of poor growing conditions.

Spacing at Building Corners.

One of the most common situations which the designer must handle is found at the corner of a building where a mass of shrubs is to be arranged. I have in mind the common arrangement featuring a columnar juniper or arborvitae placed directly at the corner of the building and surrounded by a three-quarter circle of Pfitzer or Savin junipers.

The Pfitzer or Savin junipers are often spaced about three feet apart, as this spacing gives a reasonably good immediate effect, even with small plants. However, it is obvious to all of us that this 3-foot spacing is much too close, particularly for the Pfitzer juniper. One might suggest that, after these plants have begun to crowd one another, every other plant might be removed. However, if the circular arrangement of plants is used, it is impossible to remove every other one without leaving a blank space, resulting in a break in the foliage which is undesirable and which cannot be corrected except by waiting for the permanent plants to grow together. In order to avoid the difficulty while still using the circular distribution of Pfitzers about the central plant of the group, it is advisable to place the Pfitzers six or more feet apart along the circumference of a circle five or more feet from the central plant. Naturally, this wide spacing will leave large gaps between the permanent plants while they are young. These gaps may be filled with temporary plants placed inside the outer circle of Pfitzers and in a staggered position so that they fill in the breaks but do not interfere with

the closing of foliage over a period of years between the permanent Pfitzers which are adjoining each other. However, even ample spacing may not insure the success of such a planting. These surrounding Pfitzers, growing vigorously, quite often crowd out the columnar plant in the center of the group, either through root competition for moisture and plant food or by shading if the Pfitzers have attained a considerable lead in top growth. To avoid this, the complete circular arrangement of the outside plants may be broken, thus permitting the taller-growing plant in the center to attain its desired height and spread and vigor.

Such a composition is still objectionable to many designers because the vertical lines of the columnar plant and the horizontal lines of the spreading ones do not combine to provide a softening influence on the corner of the building. In order to give this softening effect which is so desirable in many cases, one or possibly three broad-leaved evergreen plants may be introduced into the above-described composition. For this purpose they should be placed fairly close to the building corner itself. Many designers go even farther by making the entire composition of broad-leaved evergreen or deciduous plants, which definitely have a softening effect on the building lines rather than emphasizing and accenting them.

Accents and Specimens.

I have already pointed out that plants which are to be used as specimens or features in a view should be given more than the average spacing for the species. From the standpoint of convenience and desirable growth such plants should not be placed too close to the building wall, steps or sidewalk. It is a common practice to place Mugho pine or spiny Greek juniper close to the steps at the entrance or at the intersection of sidewalks. The spiny Greek juniper, when it reaches marketable size, is about twelve to eighteen inches high. There is a great temptation to place it ten inches from the sidewalk as a pleasing minor accent. Unfortunately, even this dwarf variety of juniper will grow to a height of four or five feet and a spread of four feet. In order that it will not crowd busy sidewalks and become subjected to merciless shearing, it should be placed at a distance which will permit its complete growth without interference with activities about it. It is only in this way that an effective specimen or accent plant may be maintained over a period of years.

Some of the most effective plant arrangements consist of groups of some of the larger evergreens, as Scotch pine, Austrian pine, red cedar or Chinese juniper. I have always admired the old farm windbreaks of red cedar, dense masses of rich green foliage which provide an excellent background for flowering shrubs and trees in addition to their windbreak value. However, it has taken many years for these windbreaks to grow into their present form with the foliage of adjacent trees interlacing to provide a solid mass. For ten years or more these windbreak plantings were merely rows of separate pyramidal plants. Even though many were spaced as closely as six feet apart in the row, they did not blend their foliage. In the modern landscape plantings the same effect may be obtained by placing taller evergreen species ten or fifteen feet or even farther apart, arranging them informally in such a way that from any point of observation one plant overlaps in front of the adjacent one, thus giving an appearance of a solid mass of foliage even though a considerable space is available between plants for further growth. In choosing plants for this type of informal evergreen group it is important to select those which have not been sheared into vertical specimens. Although a dense branching is desirable in any evergreen for landscape purposes, a broad pyramidal plant with irregular outline is much more satisfactory for an early blending of foliage in an informal group such as we have been considering.

Shrub Borders.

In examining plans for landscape developments I have noticed the frequent use of a shrub border composed of a single row of shrubs, made up of several species such as lilac, spiraea, forsythia, mock orange, hawthorn, etc. Inasmuch as such a shrub border is intended to screen out a view or to provide a complete enclosure, the designer usually feels it necessary to space the plants closely in order to provide a complete screen. Some of the species, such as Chinese privet, are tall enough, dense enough and have low spreading branches to provide a complete screen. Others, such as the lilac, may become somewhat open at the base, while others, such as the forsythia, may be open at the top. Thus, no one of these species will provide an adequate screen unless it is backed up or faced down, as the case may be, by other plants in combination. Thus it is important that the mixed shrub border be deeper than a single row and that one species overlap the front of the next to provide a screen and a blending of different foliage masses. This arrangement also makes it possible to provide for wider spacing, thus giving each plant more adequate space for growth.

Tree Groups.

On nearly every landscape plan the designer finds some place where he wishes to use large or small trees in groups to frame views. In order to provide a natural unforced appearance he wishes a single group of trees to blend together as a single mass of foliage rather than have isolated trees. With this in mind he may be inclined to space the trees much more closely than is desirable for adequate growth. In this situation a staggered group of trees may be placed in such a way that one tree mass overlaps in front of another, giving the blending of foliage in spite of the fact that considerable space is permitted between trees. I have in mind a group of young elms intended as a part of the enframement of one of the buildings on the campus of the University of Oklahoma. The trees are placed in a triangular arrangement. Although the closest distance is twenty-five feet and the other two distances are forty and fifty-five feet, all views of the mature trees will show them as a single mass of foliage.

In summarizing this brief consideration of spacing of trees and shrubs, I shall say simply that we should be liberal rather than stingy in our spacing and that, in general, the staggering or overlapping of plants as one looks at the composition will provide for blending of foliage without undue crowding of plants.

Spacing List.

Following is a list of landscape plants with the desirable spacing range given. The spacing standard to be adopted within the range given for each species should be selected after a study of the conditions prevailing in the individual problem. For instance, the spacing range given for Syringa vulgaris, the common lilac, is ten to twelve feet. Ten-foot spacing may be used in cases where a complete screen is necessary and the shape of the individual plant is not important. Twelve-foot spacing should be used if the plant is to serve as a specimen requiring abundant flowering and excellence of branching and foliage. Furthermore, there is a wide variation in sizes of plants in different varieties of the common lilac. Therefore, a thorough knowledge of the variety to be used will determine the spacing above or below the range given.

In the tree list it will be noticed

that considerably wider spacing is provided for street trees than for those used in lawn groups. This is necessary because of the poor growing conditions usually prevailing along streets and because each tree must grow and develop as a perfect individual, whereas the mass effect of several trees may be of first importance in the informal lawn group.

Some species of shrubs are normally cut back severely to induce flowering. The closer spacing listed for Buddleia davidi, Caesalpinia poinciana, Lagerstroemia indica, Vitex agnuscastus and Vitex negundo incisa is recommended only in cases where this treatment is expected.

The spacing recommended for Cercis canadensis, Elaeagnus angustifolia and Salix alba vitellina applies only when the plant is pruned as a shrub. See the tree list for wider spacing.

DESIRABLE SPACING FOR SHRUBS.

	Spacing in feet
Amorpha canescens	2½ to 3½
Amorpha fruticosa	6 to 8
Berberis thunbergi	3½ to 5
Buddleia davidi	3 to 6
Caesalpinia poinciana	3 to 6
Callicarpa dichotoma	3½ to 4
Caragana arborescens	8 to 12
Cercis canadensis	8 to 12
Chaenomeles lagenaria	4 to 6
Chilopsis linearis	8 to 10
Chionanthus virginicus	8 to 15
Colutea arborescens	6 to 8
Cornus alba	6 to 8
Cornus amomum	6 to 8
Cornus asperifolia	6 to 8
Cornus sanguinea	6 to 8
Cornus stolonifera	6 to 8
Cotinus americanus	10 to 15
Cotinus coggygria	8 to 10
Crataegus species	12 to 20
Cytisus scoparius	4 to 6
Deutzia gracilis	3 to 4
Deutzia lemoinei	4 to 6
Deutzia scabra	5 to 7
Elaeagnus angustifolia	10 to 15
Euonymus alatus	6 to 10
Euonymus americanus	3 to 5
Euonymus atropurpureus	12 to 15
Euonymus bungeanus	10 to 12
Euonymus europaeus	8 to 12
Forsythia intermedia	6 to 8
Forsythia suspensa	6 to 8
Forsythia viridissima	6 to 8
Hibiscus syriacus	6 to 10
Hypericum prolificum	2½ to 3½
Jasminum nudiflorum	2½ to 3½
Kolkwitzia amabilis	4 to 6
Laegerstroemia indica	4 to 10
Ligustrum amurens	6 to 10
Ligustrum ibolium	8 to 10
Ligustrum ibota	8 to 10
Ligustrum ovalifolium	6 to 10
Ligustrum quihoui	5 to 7
Ligustrum sinense	8 to 10
Ligustrum vulgare	6 to 10
Ligustrum vulgare Lodense	1½ to 3½
Lonicera fragrantissima	6 to 8
Lonicera morrowi	8 to 10
Lonicera tatarica	6 to 8
Philadelphus coronarius	6 to 8
Philadelphus lemoinei	4 to 6
Philadelphus virginalis	6 to 8
Prunus cistena	8 to 10
Prunus glandulosa Doublepink	3 to 3½
Quercus prinoides	6 to 8
Rhamnus cathartica	10 to 12
Rhamnus frangula	6 to 10
Rhus aromatica	3 to 5
Rhus copallina	8 to 10
Rhus glabra	8 to 10
Rhus typhina	10 to 12
Ribes odoratum	4 to 6
Robinia hispida	4 to 6
Salix alba vitellina	8 to 12
Salvia greggi	2 to 3
Sambucus canandensis	5 to 8
Spiraea arguta	3 to 4
Spiraea bumalda Anthony Waterer	2 to 3
Spiraea cantoniensis	4 to 5
Spiraea prunifolia	4 to 6
Spiraea thunbergi	3 to 3½
Spiraea vanhouttei	4½ to 6
Symphoricarpos albus	3 to 4
Symphoricarpos chenaulti	2½ to 3
Symphoricarpos orbiculatus	3 to 4
Syringa chinensis	8 to 10
Syringa persica	8 to 10
Syringa vulgaris	10 to 12
Tamarix species	8 to 12
Viburnum dentatum	6 to 8
Viburnum lantana	12 to 15
Viburnum opulus	8 to 10
Viburnum prunifolium	8 to 12
Viburnum rufidulum	8 to 12
Vitex agnuscastus	4 to 10
Vitex negundo incisa	4 to 10
Weigela florida	6 to 8

DESIRABLE SPACING FOR TREES.

	Street use	Lawn groups
Acer platanoides	45 to 55	25 to 40
Acer rubrum	45 to 55	25 to 40
Acer saccharinum		25 to 40
Acer saccharum	50 to 55	25 to 40
Ailanthus altissima		20 to 40
Amelanchier canadensis		15
Betula nigra		20 to 30
Carya illinoensis		20 to 40
Catalpa speciosa		20 to 40
Celtis occidentalis	45 to 50	25 to 40
Cercis canadensis		15 to 25
Cornus florida		15 to 20
Diospyros virginiana		15 to 20
Elaeagnus angustifolia		20 to 30
Fraxinus pennsylvanica lanceolata	45 to 50	20 to 35
Gleditsia triacanthos	45 to 50	25 to 40
Gymnocladus dioicus		20 to 40
Halesia carolina		15 to 25
Juglans nigra		25 to 40
Koelreuteria paniculata		15 to 20
Laburnum anagyroides		12 to 20
Liquidambar styraciflua	40 to 45	20 to 30
Liriodendron tulipifera		25 to 35
Maclura pomifera		20 to 30
Malus species		15 to 25
Morus alba tatarica		15 to 25
Platanus occidentalis	50 to 55	25 to 40
Quercus borealis	45 to 55	25 to 30
Quercus coccinea	45 to 55	25 to 30
Quercus palustris	40 to 45	20 to 30
Robinia pseudoacacia		20 to 30
Salix alba vitellina		20 to 25
Salix babylonica		20 to 35
Salix nigra		20 to 35
Sophora japonica		20 to 30
Ulmus americana	50 to 55	25 to 40
Ulmus pumila	45 to 50	25 to 40

EVERGREEN SHRUBS AND TREES.

	Spacing in feet
Abelia grandiflora	3 to 5
Euonymus japonicus	6 to 10
Euonymus kiautschovicus	4 to 6
Ilex opaca	10 to 18
Ilex vomitoria	5 to 8
Juniperus chinensis, columnar	3 to 5
Juniperus chinensis Pfitzer	6 to 9
Juniperus excelsa	3½ to 4½
Juniperus sabina	5 to 8
Juniperus scopulorum	10 to 15
Juniperus virginiana	10 to 15
Juniperus virginiana, columnar	3 to 5
Magnolia grandiflora	18 to 25
Mahonia aquifolium	3 to 5
Nandina domestica	3 to 4
Pinus mugo mughus	3 to 6
Pinus nigra	15 to 30
Pinus sylvestris	15 to 30
Prunus laurocerasus	10 to 15
Pyracantha coccinea	5 to 8
Pyracantha coccinea lalandi	7 to 10
Santolina chamaecyparissus	1 to 1½
Thuja orientalis, Baker	4 to 6
Thuja orientalis, Berckmans	3 to 4
Thuja orientalis, Bonita	3 to 4
Viburnum rhytidophyllum	8 to 10
Yucca species	1 to 1½

AID SALE OF WAR BONDS.

The Lake County Nurserymen's Association—including members in Painesville, Mentor, Perry, Geneva and adjacent towns in the famous Ohio county—decided recently to do some advertising in behalf of war bonds and concluded that a board on the highway would be most effective. The Storrs & Harrison Nurseries donated the sign on route 20 for this purpose. The Lake County Nurserymen's Association had the sign painted, as is shown in the accompanying illustration.

Nurserymen Contribute Billboard to Advertise War Bonds.

Aids with Vegetables

HORMONES FOR THE VICTORY GARDEN.

The wartime interest in growing vegetables, both for market and in the victory garden, warrants suggestions as to the applications of hormones. In the February issue of its leaflet Hormone-Tones, the American Chemical Paint Co. calls attention to the uses of its three hormone products on vegetables.

Lettuce has been found particularly sensitive to hormone treatment. A large lettuce grower in Colorado reported that in a 15-acre field last season, where every tenth row was sown with seeds treated with Rootone, treated seeds produced lettuce that matured earlier and gave larger and firmer heads. A Massachusetts grower reported that Transplantone treatment matured his lettuce so that it was marketed ten days earlier than untreated lettuce.

In many soils Rootone treatment of tomato seeds produces more vigorous early growth. The most spectacular instance of using Transplantone and increasing the yield of tomatoes was reported by a Pennsylvania farmer in 1940, when he harvested sixteen and one-half tons of tomatoes to the acre when using Transplantone on nine acres, while an acre of untreated plants yielded only five and one-half tons. He also picked his first tomatoes three weeks earlier than neighboring farmers.

The use of Fruitone as a spray to get a better set of fruit by spraying the first few hands of blossoms on the tomato plant is of value in sections where there is a severe drop of blossoms and a consequent lateness in maturity. One Pennsylvania grower reported a twenty-five per cent larger crop by spraying tomato flowers with Fruitone in the greenhouse.

Celery seeds are reported to produce a better stand when they have been treated with Rootone. Soaking the roots of celery plants overnight in Transplantone was said to have produced a twenty-two per cent increase in crop. Rootone seed treatment is said to lessen susceptibility to damping-off.

While Rootone treatment of cabbage and cauliflower seeds produces a heavier stand, the really striking results have been obtained with Transplantone. One grower who used this product had the only crop of cabbages in his locality in a summer of severe drought. Farmers in several states reported up to three weeks' earlier maturity.

Treatment with Rootone has brought favorable results on Lima beans, string beans and red kidney beans.

TIMING OF PLANTING.

Success with many vegetables which beginners find difficult to grow can be assured by careful timing of planting.

Potatoes are an example of how the early planter avoids the worms. This vegetable is subject to blights, potato bugs, leaf hoppers, flea beetles and other troubles that also attack tomatoes. Spraying many times a season is required, unless early potatoes (Irish Cobbler) are grown by planting as soon as the tubers can be set into the ground. Then they will mature by July at a time when market potatoes are expensive and hard to get. The only attention to pests needed will be spraying or dusting in May with cryolite for flea beetles. Late potatoes (Green Mountain or Katahdin) require thorough spraying at frequent intervals, starting July 1.

The Mexican bean beetle can be avoided during only one short period. Bush beans planted between June 1 and 20 usually mature a crop without serious damage by the pest. To have beans throughout the maturity season, be prepared to spray on regular dates. Bush beans planted before June 1 will need treatment about June 7 and 21 to control the bean beetle. Late beans require treatment about August 9 and 21. Limas and pole beans, being long-season crops, are much more difficult to grow, since they often require all four treatments. Soybeans are seldom attacked seriously by the bean beetle, but they are favorites of the Japanese beetle.

Cabbage and broccoli demand almost identical pest treatment. First of all, the soil should be on the sweet or alkaline side to avoid clubroot. Late plantings escape cabbage maggots, but, on the other hand, may be damaged by cabbage worms. Treatment for maggots, which are in the soil and attack the roots, can be avoided by delaying planting until June 1. If one is willing to fit a heavy paper disk around the stem to control maggots, plantings made before June 1 may need no treatment for cabbage worms. If a late crop is desired, applications of pyrethrum dust will be needed for cabbage worms about June 20 and August 5 and a third may be needed August 20.

To gain a jump on the season, set out cabbage and broccoli plants, rather than planting seeds. On setting, a paper collar is placed around each stem to discourage cutworms. Aphis, abundant in dry seasons, may be controlled by nicotine before the plants mature; if the insects appear on nearly mature heads, use rotenone.

Usually corn maturing in August is not heavily infested with the European corn borer; this means planting between May 20 and June 5 in middle latitudes to avoid this pest. Such varieties as Carmelcross, Lincoln and Golden Cross Bantam started at this time are seldom seriously damaged by the borer.

FERTILE SOILS AID IN DISEASE CONTROL.

Fertilizers for the soil and fungicides to prevent plant diseases work as a team in producing profitable yields of vegetable crops. The use of either fertilizers or fungicides alone is a profitable investment, but the benefits are almost doubled when the two are used in the proper combination, according to information recently released by the vegetable crops and plant pathology divisions at the New York state agricultural experiment station, at Geneva.

In tests made on seed treatments with peas to secure better stands, the yields were increased almost sixty per cent more on well fertilized fields than on unfertilized ones. The control of leaf blight on tomatoes by spraying likewise was much more profitable on plots receiving a 6-12-6 fertilizer than on unfertilized plots. Unfertilized, unsprayed tomatoes produced seven tons of fruit as compared with almost twenty tons of sprayed plants grown on similar soils supplied with fertilizers.

The weather affects the results secured from the use both of fertilizers and fungicides, but it exerts more influence on fungicides than on fertilizers, say the station workers. Plants almost always respond to fertilizers because they need the plant food for growth, but fungicides are not always needed, particularly in dry seasons when diseases do not develop extensively.

NEWLY elected officers of the Portland Nursery Club are: President, Melvin Surface, Gresham; vice-president, J. Frank Schmidt, Troutdale; secretary-treasurer, Clayton Lewis, Portland.

What's New in War Control Orders

CMP RATING ON STRAP.

Under part 3175.5 of controlled materials plan regulation 5, issued February 9, strapping, seals and equipment are available as operating supplies. This regulation provides that a user can extend the rating to which he is entitled by using a form of certification prescribed in the regulation.

Preference ratings AA-1 and AA-2X are given to certain manufacturers and industries listed in the regulation. If a user is not shown in either list, such as a nurseryman, he can apply a rating of A-10, which is still sufficient for him to obtain strapping, seals and accessory items.

RESCIND ORDER ON SEEDS.

The Office of Price Administration rescinded an order issued March 3 requiring farmers and home gardeners to obtain ration certificates to buy peas, beans and lentils for seeds. The OPA said that after the order had been issued it was discovered it would be "too cumbersome."

The seed rationing order was issued on the assumption by OPA officials that consumers might buy seed peas, beans and lentils for use as food and thus circumvent the requirement for the surrender of ration points from book No. 2 when these products are purchased as food.

Gardening experts told the OPA, however, that such purchases would be unlikely with seed beans selling for three to ten times as much as the price of dry beans sold for food.

The amendment provides that beans, peas and lentil seeds marked in accordance with federal or state laws may be bought without surrender of ration stamps.

GASOLINE FOR FARM USE.

Farmers may obtain gasoline for their tractors, engines, and other nonhighway equipment for a period of six months, instead of three months, under a change in rationing regulations announced by the Office of Price Administration.

The change is being made, OPA said, because of the variability of farming operations which frequently make it difficult for farmers to estimate their requirements for only a three months' period. The new provision is also designed to save the farmers' time in obtaining rations for operations which are so essential to the war effort.

A procedure is being worked out through county war boards of the Department of Agriculture for assisting farmers in making their applications for nonhighway gasoline. The review thus afforded is a safeguard against inflation of rations and makes it possible to issue rations for longer periods.

The order extending the length of the period is contained in amendment 25 to ration order 5C, effective March 2.

OPA WILL RELAX RULES.

Price Administrator Prentiss M. Brown pointed to two recent rationing activities as indicative of his policy to change OPA wartime rules for the benefit of the public as rapidly as circumstances permit.

The two actions—provision of C gasoline rations for those who cannot get to their jobs on B rations and removal of rationing restrictions on tire recapping with reclaimed rubber for passenger cars and light trucks—went into effect during February.

"War is going to be tough enough on civilians without adding any unnecessary burdens," Mr. Brown stated. "I have instructed the staff of OPA to keep constantly alert to changing conditions and to relax any rationing rules without delay whenever it becomes possible to do so.

"Not a single OPA restriction is going to last one minute longer than is necessary. On the other hand, I think in all fairness I should say that no essential OPA measure will be relaxed prematurely, if the result would be to impede the winning of the war."

The gasoline rationing amendment, effective February 24, allows any car owner who has to drive to and from work and whose B ration is insufficient to apply for a C ration book provided that the car carries as many persons as possible. Applications are to be filed with local boards, but decision on them will rest with either the district or state OPA office.

The relaxation of tire recapping rules allows car owners to have their tires recapped freely, without applying to their local boards for permission. This change, which went into effect February 20, not only benefits the average motorist, but at the same time is a rubber conservation measure. By encouraging recapping, which takes less than half as much reclaimed rubber as a new "war" tire, OPA is reducing the demand for replacement tires—either new or used.

RATINGS ON CONTAINERS.

To assure adequate distribution of shipping containers for the packing of military and civilian products, the War Products Board February 24 issued preference rating order P-140. It covers all outer wooden containers which are made from lumber, veneer, plywood or staves and outer shipping containers which are made from corrugated or solid fiber. It also includes parts such as shooks, cleats, staves, veneer, plywood, corrugated or solid fiber which are cut to size for these containers.

Under the provisions of the order, preference ratings are assigned for the procurement of shipping containers according to the importance of use. AA-1 is for containers for military combat items, while AA-2X is for containers for other military items, lend-lease products and foods purchased by government agencies. AA-3 is for containers for products specified on a list of that number, AA-4 for products on list 4 and AA-5 for products on list 5.

These products are not the only essential products being produced, but they will not require all of the containers which will be made available. Accordingly, there will be millions of containers for products which are not listed. If a producer or shipper experiences difficulty in securing containers without a rating, he may apply for a rating on form PD-802.

On list 4 appear "fruit and vegetable trees and plants (excluding ornamental)."

FARM DEFERMENT.

In response to inquiries on deferments of farm employees, attention is called to the information presented in the February 1 issue, on pages 28 and 29, under the heading "Defer Farm Workers." Local draft boards should have this information in local board release 175, issued from the national headquarters of the selective service system as effective January 16, 1943.

It should be added that the selective service occupational bulletin 18, issued September 16, 1942, which

listed a "nurseryman" as being engaged in a critical agricultural activity, has been amended as of February 20, 1943, by the substitution of the term "nursery supervisor." Apparently it is the intention to defer, not the ordinary workman, but the keymen engaged in supervisory work.

Keymen working in the nursery would only obtain deferment on the unit basis applicable to fruit trees and berry plants. If the nursery also produces farm crops, such crops would provide additional units.

Some draft boards only consider the bulletins and releases from headquarters as guides to be followed where possible, and whether the board makes a strict or loose interpretation varies considerably. By calling attention of the board to bulletin 18 as amended and to local board release 164 as amended in release 175, and supporting applications for deferment of keymen with sufficient evidence, nurserymen may be able to hold experienced keymen that are left.

MAY VOTE DEFERMENT OF FARM WORKERS.

The senate military affairs committee has approved legislation to defer farm workers from the draft during the remainder of this year.

After a controversy within the committee, a bill by Sen. George A. Wilson [R., Ia.] was substituted for legislation introduced originally by Sen. John H. Bankhead [D., Ala.] with thirty-nine cosponsors, by a committee vote of 9 to 7. Senate passage is considered likely.

The bill provides that until January 1, 1944, every registrant under the selective service act "who is regularly engaged in any agricultural occupation or endeavor on a farm, or whose principal occupation consists of employment on a farm in connection with the production or harvesting of any agricultural commodity shall, while he continues to be so engaged or employed, be deferred from training and service under this act in the land and naval forces of the United States."

The measure provides that the farm worker may not leave the farm unless he requests his selective service board to determine, and it so decides, that it is in the best interests of the war for him to engage in some other occupation or endeavor or to become a member of the land or naval forces. To relieve the farm worker of any feeling of stigma connected with deferment, the bill provides that he shall receive a certificate from the local draft board stating that his deferment "has been found by such board to be in the best interests of the war effort."

The bill is intended to stop the flow of previously depleted farm labor into the army or navy or war industries. The farm bloc has demanded a curb on the size of the army in order to protect labor for production of essential food supplies, of which a severe shortage is predicted. The farms are now said to be 3,000,000 workers short of the help needed to produce the foodstuffs required this year.

The Bankhead bill did not limit farm deferments to this year nor provide for the certificate of deferment.

RULES ON 48-HOUR WEEK.

Regulations issued February 28 by Paul V. McNutt, chairman of the War Manpower Commission, to govern the application of the 48-hour week called for by the President, will, with some exceptions, affect all employers of eight or more persons in thirty-two designated areas, whose production can be increased by a longer week or who can maintain their production with fewer men.

The exact boundaries of these areas, for the purpose of applying the 48-hour week, will be fixed by the regional directors of the WMC in the various localities.

Inquiries concerning application of the regulations should be directed to the proper regional or area manpower director. Administration of the order is delegated by the chairman to the commission's regional and area directors.

It is made clear that the lengthened week order will not apply to farms or to business houses in which fewer than eight persons are employed regularly.

The exclusion of establishments with fewer than eight persons, it is explained in an interpretative statement issued with the regulations, is based chiefly on assumption that in smaller establishments the extension of the work week would not result in the release of workers.

The regulations have been sent to regional and area directors and to United States Employment Service offices, together with instructions for carrying out terms of the President's order.

Regional and area directors are authorized to consider a minimum work week of less than forty-eight hours when a full 48-hour week would neither increase production, release workers for other employment, nor otherwise further the war effort.

Whenever the regional or area manpower director determines that released workers can be placed promptly in suitable employment, their employer will be notified. The employer should then proceed promptly to shift to the longer week. If the representative of the War Manpower Commission has not determined and notified the employer, however, that his released workers can be placed without delay, the work week will not be extended before April 1, 1943.

Before that date the employer will be expected to submit to the representative of the commission a statement as to how many workers would be released and their occupational classification, together with a proposed schedule for the timing of their release. In such cases, the regional or area manpower director will authorize the schedule for the extension of the work week to the 48-hour work week and for the release of the workers in accordance with the needs of the labor market. The employer then will extend his work week in accordance with such schedule.

The following areas are subject to the provisions of the executive order:

Akron, O.	Manitowoc, Wis.
Baltimore, Md.	Mobile, Ala.
Bath, Me.	New Britain, Conn.
Beaumont, Tex.	Ogden, Utah.
Bridgeport, Conn.	Panama City, Fla.
Brunswick, Ga.	Pascagoula, Miss.
Buffalo, N. Y.	Portland, Ore.
Charleston, S. C.	Portsmouth, N. H.
Cheyenne, Wyo.	San Diego, Cal.
Dayton, O.	Seattle, Wash.
Detroit, Mich.	Somerville, N. J.
Elkton, Md.	Springfield, Mass.
Hampton Roads, Va.	Sterling, Ill.
Hartford, Conn.	Washington, D. C.
Las Vegas, Nev.	Waterbury, Conn.
Macon, Ga.	Wichita, Kan.

RECLASSIFY OLDER MEN.

Selective service local boards were directed March 8 to place no more men over 38 years of age in class IV-H, the class for registrants who are beyond the present military age limit, and to reclassify out of class IV-H those registrants who, by reason of their agricultural occupation or endeavor, are now or prior to May 1 may become eligible for class II-C or class III-C deferment.

Furthermore, boards were advised that beginning May 1, 1943, they should reclassify out of class IV-H all other registrants and place them in the classes to which they properly belong by reason of occupation, dependency or other status.

Registrants who are reclassified out of class IV-H and who have no cause for deferment other than age will be placed in class I-A and will be the first men over 38 inducted if and

Wayne Ferris.

when the armed forces determine they can be used in the military establishment.

Those registrants who are reclassified out of class IV-H and placed in class II-C or class III-C because of their agricultural occupation or endeavor prior to May 1 will be continued in those classes as long as they are necessary to agriculture if men over 38 are called for service. Other registrants reclassified after May 1 and placed in other classes will remain there, if men over 38 are called, only so long as men in their class would be deferred—as for example, normally not longer than six months if they are given a class II-A or class II-B deferment for occupation other than agricultural.

IOWA OFFICERS.

At the recent annual meeting at Des Moines, the Iowa Nurserymen's Association elected a new staff of officers: The president is Wayne Ferris, of the Earl Ferris Nursery Co., Hampton. He was born, and still lives in the same house, on the nursery grounds. Except for a brief period when he attended Iowa State College and later the University of Iowa, he has been engaged at the nursery in some capacity. For the past fifteen years he has been active in the business himself and has been manager for several years because of the health of his father. He has three children, Patricia, 14; Earl, Jr., 13, and Wayne, Jr., 12 years old. The nursery was started by his grandfather seventy-four years ago.

The new vice-president is J. C. Baumhoefener, usually called Carl, who operates the Baumhoefener Nursery, Cedar Rapids, in joint partnership with his father, A. J. Baumhoefener, doing a general landscape business. He graduated from Iowa State College in 1929 with the degree of B.A. in landscape architecture and was employed by the park department of the city of Pittsburgh for a short time before establishing the present firm. He is 36 years old.

The new secretary is C. H. Heard, of Heard's Landscape Nurseries, Des Moines. His great-grandfather was a fruit grower and nurseryman, and his grandfather had an orchard. Born at Sweetland, Mo., 1889, Mr. Heard moved with his parents to Idaho. He obtained his degree of master of science in horticulture in 1912 from the University of Idaho. He taught school, did experimental and research work, mainly at the universities of Arkansas and Nebraska and, at the time of the first World war, was in charge of the Des Moines office of the United States bureau of markets. Reading the advertisements about the great money made by nurs-

J. C. Baumhoefener.

ery stock salesmen on commission, he began in that line. In 1926 he started his present business. He has two sons, one of whom was associated with him until the army called; he is now Sgt. William R. Heard.

SHAVINGS FOR PACKING.

Because of the inability to obtain sufficient shingle tow, orders for several carloads of shavings have reached the Shavings & Sawdust Co., Chicago, this spring from large midwestern nurseries. Since shavings are readily obtainable, the following information about their use for packing nursery stock, from A. F. Lake, president of the Shenandoah Nurseries, Shenandoah, Ia., is timely:

"The use of shavings for the packing of certain kinds of nursery stock is nothing new. Fifty years ago, when I first began to take an active part in this concern, we bought a number of carloads of grapevines each year from Fredonia, N. Y., and they were always packed in damp shavings. I do not know how many years before that shavings were used. Occasionally we, during all the years, have received shipments of small fruits from other places packed in shavings.

"Our judgment is that shavings are suitable only for fibrous-rooted plants. If used to pack trees, they will sift down to the bottom of the package. We are going to mix the shavings with fifty per cent excelsior. We shall thoroughly fork over the mixture and soak it, and feel that it will be a good packing material for anything that we wish to use it on."

STARK HEADS VICTORY GARDEN INSTITUTE.

Paul Stark, of Stark Bros. Nurseries & Orchards Co., Louisiana, Mo., has been elected president of the newly formed National Victory Garden Institute, Inc. The election was held at headquarters of the institute, 598 Madison avenue, New York.

Vice-presidents chosen included Lester Norris, chairman of the Illinois state victory garden committee; Richardson Wright, editor of House and Garden, New York; David Burpee, seedsman, Philadelphia; John L. McCaffrey, vice-president of International Harvester Co., Chicago, and Chester C. Davis, St. Louis, Mo., president of the Federal Reserve Bank, twelfth district. Andrew S. Wing was made secretary-manager.

The executive committee includes Paul Stark, Lester Norris, David Burpee, F. F. Rockwell and Richardson Wright.

M. L. Wilson, director of extension service, United States Department of Agriculture, was made honorary chairman.

C. H. Heard.

Survey of War Problems

Early this year a cross-section survey of problems confronting the nursery industry in Pennsylvania during wartime was made by A. O. Rasmussen, extension ornamental horticulturist at Pennsylvania State College. Forty firms in various sections of the state were sent copies of a questionnaire, and replies were received from thirty-three nurseries. Besides indicating the situation of the industry under war conditions, the survey was also of value because it revealed some ways in which current problems were met. In a summary of the tabulated results of the questionnaire, Mr. Rasmussen reported:

"It is apparent from the survey that a critical labor and transportation shortage exists with this industry as well as with other industries in the country. Under the circumstances it may be necessary to diversify some of the nursery activities. If a nursery is equipped to grow vegetable plants for the trade and to grow vegetables where processing plants and markets are close at hand it may be advisable to do so. Several nurseries have reported that they plan to raise poultry, swine and feeder cattle for market and the by-products (manure) may be sufficient to supply limited amounts of desirable nitrogen to their nursery plantings.

"From the survey it appears that boys of high-school age and older men, 60 to 70 years of age, can be used as replacement labor, while on the other hand only five nurseries reported having employed women in their nursery for particular types of work rather than clerical duties. In most instances wage increases range from ten to 100 per cent, with an average of twenty-eight per cent for all nurseries reporting. Thirty-one of the nurseries reported 734 men employed normally throughout the year, and thirty-three of the nurseries reported that they needed approximately 800 men for additional work during the planting season. A total of 603 employees of the thirty-three nurseries reporting have transferred to the armed services or to industry, in a ratio of about one man to the armed services to each 2.3 men to industry.

"It is the general consensus of opinion that railroad and truck offer the best means of transportation. Of twenty-seven nurseries reporting use of private or firm cars there was almost an equal division, fifteen private cars being used and twelve firm cars.

"Prospects for spring planting jobs, it will be noted, have decreased and demands for miscellaneous small stock seem to be most apparent. Apparently substitute burlap such as is supplied by several eastern firms will be the solution to the method of covering balled plants or bare-root material.

"Most of the mechanical equipment in use seems to be in good working order, although some nurserymen stated that they were unable to make repairs on such equipment.

"It is interesting to note that thirteen nurseries have been supplying the federal government and fifteen nurseries the commonwealth of Pennsylvania with nursery stock, whereas twenty nurseries stated they have not been in a position to supply material for camouflage purposes.

"From the standpoint of producing food in the war effort, twenty nurseries reported that they were planning to use some of their present acreage for this production. Sixteen nurseries reported that they were planning to use a total of 231 acres for vegetable production other than for their own immediate use.

"The nursery industry for the most part appears to be in a rather fortunate position regarding fuel, since a total of twenty-three nurseries reported that they were using coal for heating greenhouses, propagating houses and general buildings."

DAILY AUTOMOBILE RECORD — **The Siebenthaler Co.**

Car No.	Make	License	Capacity	Cert. of War. Emerg.	Next Lubrication
37	Ford	8272	1½ Ton	758450	35000

1943	Speedometer Reading at End of Day	Day's Mileage	Gas In Gals.	Oil In Qts.	No. of Trips	Hours In Use	Property Transported	Total Units	Local	Over the Road	Repairs or Remarks	Driver
1-2	31838								~			
1-4	31872	34	10	1	2	8	Tree	2	~		Diehl	Jes
1-5	31887	15			1	4	"	1	~			Jes
1-6	31951	64			4	8	"	4	~			Jes
1-7	31954	3	10		1	1	"	0	~		Diehl Fabrication	Jes
1-8	32019	65			4	8	Tree	4	~			Jes
1-9	32029		13								Mowing	Jes
1-9	32042	23			1	3½	Tree	1½	~			Jes
1-11	32079	37			1	4	Tree	1½	~			Jes
1-12	32164	85	16		4	7	"	6	~		Diehl	Jes
1-13	32235	71	10		3	6	"	4½	~		Mowing	Jes
1-15	32336	101	12		2	5	"	2	~	~	Middleton	Jes.
1-16	32336											

Form for Truck Record Prepared by Ohio Firm.

GRASSHOPPER POISON.

Grasshoppers face a chemical foe in 1943 notwithstanding that the government requires for other purposes the sodium arsenite used heretofore to poison the pests. It is sodium fluosilicate (also known as sodium silicofluoride), produced by DuPont, which meets all government specifications for use in poison baits.

Sodium fluosilicate is a dry powder much more easily and safely handled and stored than concentrated sodium arsenite solutions commonly employed. It is said to be much more distasteful to farm animals than sodium arsenite, which is quite attractive. However, it is poisonous and must be handled accordingly.

DAILY TRUCK RECORD.

Because the standard forms for truck drivers' records are needlessly complicated or do not apply to nurserymen's operations, the Siebenthaler Co., Dayton, O., had a local printer set up a form and print cards for its own use. This card measures 8½x 10½ inches and is perforated with two holes in the top margin so that it can be hung on a board and later placed in a file. It contains thirty-four lines for entries. There is one card for each truck, and the driver makes entries each day, as shown on the accompanying reproduction of a card. At the end of the day or week or month the cards can be collected and tabulated in the office for the firm's records.

The Siebenthaler Co. has found this method of keeping records on truck operation so simple, and at the same time adequate, that permission was given for reproduction of a sample card in case other nurserymen wish to adopt a similar form. The operator of one or two trucks might hand-rule a card of suitable size, while a firm operating a fleet of trucks, like the Siebenthaler Co., might have the local printer run off a supply for a year or two.

ORDER NOW FROM THIS PRICE LIST

KURUME AZALEAS

	10 rate	100 rate	1000 rate
AMOENA COCCINEA. Red flowers.			
1-yr., trs.		$0.09	$0.07½
4 ins.	$0.20	.15	.12
6 ins.	.30	.25	.20
MACRANTHA. Salmon-red flowers.			
4 ins.	.20	.15	....
6 ins.	.40	.30	....
8 ins.	.50	.40	....
10 ins.	.60	.50	....
12 ins.	.70	.60	....
MACRANTHA ALBA. White flowers.			
4 ins.	.20	.15	....
6 ins.	.40	.30	....
8 ins.	.50	.40	....
10 ins.	.60	.50	....
12 ins.	.70	.60	....
PINK PEARL. Salmon-pink flowers.			
2-yr., trs.	.20	.15	....
8 ins.	.90	.80	....
10 ins.	1.25	1.00	....
12 ins.	1.50	1.25	....
15 ins.	1.75	1.50	....
18 ins.	2.00	1.75	....
21 ins.	2.25	2.00	....
24 ins.	2.50	2.25	....

KAEMPFERI HYBRID AZALEAS

	10 rate	100 rate
ATLANTA. Immense purple flowers.		
8 ins.	$0.50	$0.40
10 ins.	.60	.50
12 ins.	.70	.60
15 ins.	.85	.75
18 ins.	1.00	.90
21 ins.	1.25	1.10
24 ins.	1.50	1.25
CARMEN. Beautiful carmine-rose flowers.		
8 ins.	.50	.40
10 ins.	.60	.50
12 ins.	.70	.60
15 ins.	.85	.75
18 ins.	1.00	.90
24 ins.	1.50	1.25
CLEOPATRA. Bright rosy-pink flowers.		
8 ins.	.50	.40
10 ins.	.60	.50
12 ins.	.70	.60
15 ins.	.85	.75
18 ins.	1.00	.90
FEDORA. Deep salmon-rose flowers.		
15 ins.	.85	.75
18 ins.	1.00	.90
MAUVE QUEEN. Flowers of a pleasing mauve shade.		
6 ins.	.40	.30
8 ins.	.50	.40
10 ins.	.60	.50
15 ins.	.85	.75
18 ins.	1.00	.90
24 ins.	1.50	1.25
OTHELLO. Flowers of a brilliant orange red.		
6 ins.	.40	.30
8 ins.	.50	.40
PURPLE KING. Rosy-purple flowers.		
6 ins.	.40	.30
8 ins.	.50	.40
10 ins.	.60	.50
12 ins.	.70	.60
15 ins.	.85	.75
18 ins.	1.00	.90
ZAMPA. Strawberry-red flowers.		
8 ins.	.50	.40
10 ins.	.60	.50
12 ins.	.70	.60
15 ins.	.85	.75
18 ins.	1.00	.90

LEDIFOLIA (INDICA) AZALEAS

ALBA. Evergreen. Large white flowers.			
1-yr., trs.	.12	.10	
6 ins.	.40	.30	
8 ins.	.50	.40	
10 ins.	.60	.50	
12 ins.	.70	.60	
15 ins.	.85	.75	
18 ins.	1.00	.90	
LADY LILAC. Evergreen. Single lilac flowers.			
1-yr., trs.	.12	.10	
4 ins.	.20	.15	
6 ins.	.40	.30	
8 ins.	.50	.40	
10 ins.	.60	.50	
12 ins.	.70	.60	
ROSEA HYBRIDS. Evergreen. Large single flowers in all shades of lavender, pink and rosy red.			
8 ins.	.50	.40	
10 ins.	.60	.50	
12 ins.	.70	.60	
15 ins.	.85	.75	
18 ins.	1.00	.90	
24 ins.	1.50	1.25	
30 ins.	2.00	1.75	
36 ins.	2.50	2.25	

	10 rate	100 rate	1000 rate
BERBERIS JULIANAE (Wintergreen Barberry).			
8 to 10 ins., BR.	$0.15	$0.12	$0.10
10 to 12 ins., BR.	.18	.15	.12½
12 to 15 ins., BR.	.40	.25	.20
15 to 18 ins., B&B.	.70	.60	....
18 to 24 ins., B&B.	1.00	.90	....
BERBERIS TRIACANTHOPHORA (Three-spine Barberry).			
8 to 10 ins., BR.	.20	.15	.12½
10 to 12 ins., B&B.	.40	.30	....
12 to 15 ins., B&B.	.50	.40	....
15 to 18 ins., B&B.	.70	.60	....
BUXUS SEMPERVIRENS ARBORESCENS (Tree Boxwood).			
4-yr., trs., 6 to 8 ins., BR.	.12½	.10	.09
4-yr., trs., 8 to 10 ins., BR.	.16	.15	.14
4-yr., trs., 10 to 12 ins., BR.	.20	....	....
COTONEASTER FRANCHETI (Franchet Cotoneaster).			
4-in. pots, 8 to 10 ins.	.25	.20	....
COTONEASTER HORIZONTALIS (Rock Cotoneaster).			
4-in. pots, 8 to 10 ins.	.25	.20	....
6-in. pots, 10 to 12 ins.	.40	.35	....
COTONEASTER HORIZONTALIS PERPUSILLA.			
4-in. pots, 8 to 10 ins.	.25	.20	....
6-in. pots, 10 to 12 ins.	.40	.35	....
COTONEASTER LACTEA. Evergreen variety with small red berries.			
4-in. pots, 18 to 24 ins.	.25	.20	....
6-in. pots, 24 to 30 ins.	.40	.35	....
7-in. pots, 3 to 4 ft.	.50	.40	....
COTONEASTER MICROPHYLLA COCHLEATA.			
3-in. pots	.20	.15	....
4-in. pots, 8 to 10 ins.	.25	.20	....
6-in. pots, 10 to 12 ins.	.40	.35	....
COTONEASTER SALICIFOLIA FLOCCOSA (Willow-leaf Cotoneaster).			
3-in. pots	.20	.15	....
4-in. pots	.25	.20	....
ILEX AQUIFOLIUM PYRAMIDALIS COMPACTA (English Holly).			
12 to 15 ins., BR.	.25	.20	
15 to 18 ins., B&B.	.75	.60	....
18 to 24 ins., B&B.	1.00	.90	....
24 to 30 ins., B&B.	1.50	1.25	....
30 to 36 ins., B&B.	2.50	2.25	....
ILEX CORNUTA BURFORDI.			
All berry-bearing—Pistillate.			
Bed-grown.			
2-yr.	.15	.12	
6 to 8 ins., 2-yr., BR.	.18	.15	
8 to 10 ins., 2-yr., BR.	.20	.18	
12 to 15 ins., B&B.	.50	.40	....
15 to 18 ins., B&B.	.60	.50	....
18 to 24 ins., B&B.	.70	.60	....
Field-grown.			
12 to 15 ins., B&B.	.75	.60	....
15 to 18 ins., B&B.	1.00	.90	....
18 to 24 ins., B&B.	1.50	1.25	....
24 to 30 ins., B&B.	2.00	....	....
ILEX CRENATA CONVEXA (Bullata).			
4 to 6 ins., BR.	.10	.09	
6 to 8 ins., BR.	.12	.10	
8 to 10 ins., BR.	.15	.12½	
10 to 12 ins., B&B.	.50	.40	....
12 to 15 ins., B&B.	.60	.50	....
15 to 18 ins., B&B.	.70	.60	....
ILEX CRENATA HELLERI. Very dwarf.			
2¼-in. pots	.07½	.06	
6 to 8 ins., B&B.	.60	.50	....
8 to 10 ins., B&B.	.70	.60	....
10 to 12 ins., B&B.	.85	.75	....
ILEX CRENATA MICROPHYLLA. Small-leaf variety.			
12 to 15 ins., B&B.	.60	.50	....
15 to 18 ins., B&B.	.70	.60	....
ILEX CRENATA ROTUNDIFOLIA.			
1-year, BR.	.07½	.06	
4 to 6 ins., BR.	.10	.09	
6 to 8 ins., BR.	.12	.10	
8 to 10 ins., BR.	.15	.12½	
10 to 12 ins., BR.	.18	.15	
Bed-grown.			
12 to 15 ins., B&B.	.50	.40	....
15 to 18 ins., B&B.	.60	.50	....
ILEX OPACA (American Holly).			
2-yr. sdls., 12 to 15 ins., BR.	.08	.07	
3-yr. sdls., 15 to 18 ins., BR.	.12	.10	
3-yr. sdls., 18 to 24 ins., BR.	.18	.15	
Berry-bearing—Pistillate.			
18 to 24 ins., B&B.	.75	....	....
3 ft., B&B.	1.50	....	....
4 ft., B&B.	2.00	....	....
5 ft., B&B.	3.00	....	....
ILEX OPACA CROONENBERG.			
24 to 30 ins., B&B.	1.25	1.00	....
30 to 36 ins., B&B.	1.50	....	....
36 to 42 ins., B&B.	2.50	....	....
42 to 48 ins., B&B.	3.00	....	....
48 to 54 ins., B&B.	3.50	....	....
ILEX OPACA HOWARD (American Holly).			
3 ft., B&B.	2.00	....	....
4 ft., B&B.	3.00	....	....
5 ft., B&B.	4.00	....	....

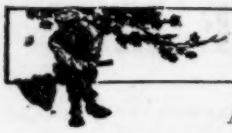
	10 rate	100 rate	1000 rate
ILEX OPACA XANTHOCARPA (American Holly). Yellow berries.			
42 to 48 ins., B&B.	$3.00	....	....
48 to 54 ins., B&B.	3.50	....	....
54 to 60 ins., B&B.	4.00	....	....
6 ft., B&B.	5.00	....	....
ILEX PEDUNCULOSA. Evergreen Holly with bright red berries.			
15 to 18 ins., B&B.	.85	$0.75	....
18 to 24 ins., B&B.	1.00	.90	....
24 to 30 ins., B&B.	1.25	1.00	....
ILEX PERNYI. A slow-growing pyramidal Holly.			
8 to 10 ins., B&B.	.35	.30	....
10 to 12 ins., B&B.	.45	.40	....
12 to 15 ins., B&B.	.60	.50	....
15 to 18 ins., B&B.	.75	.60	....
18 to 24 ins., B&B.	1.00	.90	....
ILEX PERNYI VEITCHI. Evergreen. Chinese Holly with scarlet berries.			
8 to 10 ins., B&B.	.35	.30	....
10 to 12 ins., B&B.	.45	.40	....
12 to 15 ins., B&B.	.60	.50	....
15 to 18 ins., B&B.	.75	.60	....
18 to 24 ins., B&B.	1.00	.90	....
ILEX VERTICILLATA (Winterberry).			
15 to 18 ins., BR, trs.	.05	$0.04	
18 to 24 ins., BR, trs.	.10	.08	
2 to 3 ft., BR, trs.	.12	.10	
3 ft., BR., trs.	.15	.12	
ILEX VERTICILLATA POLYCARPA (Winterberry).			
2-yr., 15 to 18 ins., BR grafts	.15	.12	....
36 to 42 ins., BR, grafts.	.40	.35	....
42 to 48 ins., BR, grafts.	.50	.45	....
48 to 54 ins., BR, grafts.	.60	.55	....
ILEX VOMITORIA (Yaupon).			
Berry-bearing.			
2½-in. pots	.07½	.06	
18 to 24 ins. high, B&B.	.85	.75	....
24 to 30 ins. high, B&B.	1.25	1.00	....
30 to 36 ins. high, B&B.	1.50	1.25	....
36 to 42 ins. high, B&B.	2.00	1.75	....
42 to 48 ins. high, B&B.	2.50	2.25	....
48 to 54 ins. high, B&B.	3.00	2.75	....
54 to 60 ins. high, B&B.	4.00	3.75	....
LAUROCERASUS CAROLINIANA (Cherry Laurel).			
24 to 30 ins., B&B.	1.00	.90	....
30 to 36 ins., B&B.	1.25	1.00	....
36 to 42 ins., B&B.	1.50	1.25	....
42 to 48 ins., B&B.	2.00	1.75	....
4 to 5 ft., B&B.	2.50	2.25	....
5 to 6 ft., B&B.	3.00	....	....
LIGUSTRUM LUCIDUM (Glossy Evergreen Privet).			
12 to 15 ins., BR.	.30	.25	.20
12 to 15 ins., B&B.	.40	.35	....
15 to 18 ins., BR.	.40	.35	....
15 to 18 ins., B&B.	.60	.50	....
18 to 24 ins., B&B.	.85	.75	....
24 to 30 ins., B&B.	1.00	.90	....
30 to 36 ins., B&B.	1.25	1.15	....
LIGUSTRUM NOBILIS. Upright grower.			
12 to 15 ins., BR.	.25	.20	....
12 to 15 ins., B&B.	.40	.35	....
15 to 18 ins., BR.	.40	.35	....
15 to 18 ins., B&B.	.60	.50	....
18 to 24 ins., B&B.	.85	.75	....
24 to 30 ins., B&B.	1.00	.90	....
MAGNOLIA GRANDIFLORA.			
3 ft., B&B.	1.00	.90	....
4 ft., B&B.	1.25	....	....
5 ft., B&B.	1.50	....	....
MAGNOLIA KOBUS.			
2 to 3 ft., B&B.	.60	.50	....
3 to 4 ft., B&B.	.90	.75	....
4 to 5 ft., B&B.	1.25	1.00	....
5 to 6 ft., B&B.	1.50	1.25	....
6 to 7 ft., B&B.	2.00	1.75	....
OSMANTHUS AQUIFOLIUM (Holly Osmanthus).			
6 to 8 ins., BR.	.12	.10	
8 to 10 ins., BR.	.15	.12	
10 to 12 ins., BR.	.18	.15	
10 to 12 ins., B&B.	.40	.35	....
15 to 18 ins., B&B.	.85	.75	....
18 to 24 ins., B&B.	1.00	.90	....
24 to 30 ins., B&B.	1.25	1.00	....
OSMANTHUS ARMATUS.			
12 to 15 ins., B&B.	1.00	....	....
15 to 18 ins., B&B.	1.25	....	....
VIBURNUM SETIGERUM (Viburnum Theiferum).			
2-yr. seedlings	.12½	.10	
10 to 12 ins., BR.	.25	.20	....
12 to 15 ins., BR.	.30	.25	....
18 to 24 ins., BR.	.35	.30	....

Terms: F.O.B. Hampton, Virginia; check with order.

Japanese Beetle Certificates accompany all shipments outside of the beetle zone and will be furnished upon request to those within the zone.

Write for Wholesale Catalogue.

LE-MAC NURSERIES, Hampton, Virginia



Charlie Chestnut

A Good Side Line Helps

"Whats the market price of scrap iron?" I heard one of the members asking Emil at the convention in Chi. last Jan. In fact there was so many of the members kidding Emil about the junk business, the old boy got real touchy on the subject.

"Its a fine situation," he says, "when a person gets the razberry for just protecting his own rights like I done. Charlie," he says, "I want you to go to work and put it in the paper exactly what happened. I want to shut up these smart alec members and put them in their place once and for good." Emil was sure burned up.

So thats how it comes I am giving all the details from the beginning. The beginning was right here in Riverbend, at the civic club meeting last fall. So thats where I will begin to tell how the whole business started.

Emil aint a member of the club but it was guest night, so I took him down to the ham supper which is served by the ladies society of the Baptist church. We used to have the Methodist ladies until they raised from 35c to 50c, then we quit them.

After supper was over they got going on the business meeting. Doc Hart is the president. Doc is a vet and not no regular doc. He knows Emil on account of doctoring Emils old horse Victoria for the heaves and that trouble with her stifle joint. Emil knows him well. I'll bet Doc has got over 200 honeysuckles planted around his place as Emil always pays him off in bushes. Doc always says bushes is better than nothing at all. This part dont have much to do with the story except it goes to show that Emils place was pretty familiar to the Doc as he has been out around our barn many is the time. In fact Emil sat next to Doc at the supper.

Well, as I was saying after supper come the meeting. We had roll call and introduced the speakers altho everybody was well acquainted, but they always do it anyway. We sung God Bless America with Mrs. Morse at the piano. Mrs. Morse always plays the piano so she wont have to help wash the dishes, at least that is what some of the other ladies say.

Finally Doc got up and tapped on his water glass until the crowd quieted down a little. He called on the secy., which is Sandy Bowers this year. The members have heard me speak of Sandy. His brother runs the hardware and he is the one that Emil run off the board of supervisors. Sandy didn't have time to write up the minutes from the last meeting, so he had to read off the back of an envelope where he made the notes last meeting and as he had carried it in his pocket for a month the writing was all blurred. "Cant make head or tail out of it," Sandy says, so they went on to the committee reports.

"Let's have the report of the delegates to the state convention," Doc says looking over to where a couple of the members was sitting near the kitchen door. "Lets have your report boys," says the Doc.

One of the delegates got up and leaned on his chair. "Me and George went down to the meeting, we drove Georges delivery wagon from the market as he had pretty good rubber on it. It was a great meeting. Big parade. And I never seen so many drum and bugle corps in my life. Must of been 8 or 10 wasnt they George?"

"Yeah, more'n that," says Geo.

"The corn looked good all the way down, clear down to Peoria, that is if they dont get a early frost. Well I guess thats about all. You think of anything else George?"

"No, that about covers it," says Geo. And with that snappy report Doc went on to the report of the program committee for the harvest festival which the club puts on every fall. Jake from the F and M Nursery is chairman of that committee so the Doc called on Jake. "What do you say, Jake," says the Doc, "make it brief on account of we have got a lot of new business to take up yet."

Jake got up and walked the whole length of the hall to come up on the platform. Jake was always a great one to show off. Some of the boys give a flutter of applause as Jake walked up there.

"We aint been able to get all the members together for a meeting yet," says Jake, "but I been talking to different ones and they all want to make the show bigger and better than ever. There was some complaints last fall on the bingo games, some said they didnt call the numbers loud enough so we are going to have a loud speaker rigged up for that. Then there is some that is complaining that 10c is too much for a hamburger. I'de like to see any of the members make a 5c hamburger the way meat prices is. Why I was talking with the butcher today and he claims prices is going up and we will be lucky if we can make anything even on a ten center. I'de like to have any suggestions from the members."

Nobody said anything for a minute until somebody in the back of the hall yelled, "Sit down, let the committee figure it out themselves."

"Well, O.K. then," says Jake, "I dont want to hear no more complaints." That was the end of the argument and Jake walked back to his seat.

Doc rapped again on his water

LINING-OUT STOCK

S—Seedlings. T—Transplants. Br—Branched.

	Per 100
Azalea Gandavensis (Ghent) 3-yr., T, 8 to 12 ins.	$20.00
Juniper Stricta 3-yr., T, 6 to 10 ins.	20.00
Taxus Cusp. Upright 2-yr., S, 3 to 5 ins.	5.00
3-yr., S, 4 to 8 ins.	6.00
4-yr., T, 8 to 12 ins.	20.00
Taxus Hatfieldi 4-yr., T, 8 to 12 ins.	25.00
Taxus Hicksi 4-yr., T, 10 to 14 ins.	20.00
Cotoneaster Praecox 2-yr., T, 6 to 9 ins.	12.00
Daphne Mezereum 1-yr., S, 2 to 4 ins.	3.00
3-yr., S, 4 to 7 ins.	6.00
Mezereum Alba 1-yr., S, 2 to 4 ins.	5.00
This is the White February Daphne.	
Prunus Maritima (Beach Plum), cut back last spring. Br, 2-yr., S, 12 to 18 ins.	7.00
Viburnum Carlesi, 2-yr., S, 4 to 8 ins.	10.00
Dilatatum, 2-yr., Br, 12 to 18 ins.	7.00
Dentatum, 1-yr., S, 5 to 10 ins.	3.00

C. HOOGENDOORN

Turner Road Newport, R. I.

SURPLUS LIST OF SCARCE ITEMS

We have several thousand of them. All first-grade landscape material.

Acer Ginnala, 5 to 6 ft.; 6 to 7 ft.
Acer Platanoides, 1½ up to 2½-in.
Acer Schwedleri, 1½ up to 2½-in.
Fraxinus Americana, ½ to 3-in.
Gleditsia Inermis, 6 to 8 ft.; 2½-in.
Bolleana Poplar, 1½ to 3-in.
Sorbus Aucuparia, 8 to 10 ft.; 10 to 12 ft.
Tilia Americana, 8 to 10 ft., up to 3-in.
Tilia Vulgaris, 8 to 10 ft., up to 2-in.
Ulmus Americana, 1½ to 3-in.
Prunus Padus, 5 to 6 ft.; 6 to 7 ft.
Corylus Americana, 4 to 5 ft.; 5 to 6 ft.
Cotoneaster Divaricata, 2 to 3 ft.; 3 to 4 ft.
Ligustrum Regelianum, 2 to 3 ft.
Eleagnus Longipes, 4 to 5 ft.; 5 to 6 ft.

Many other items. Write for prices.

Hillsdale Landscape Co.
R. R. 13, Box 158
INDIANAPOLIS, IND.

Sherwood's Evergreen Lining-out Stock

Now is the time to place your order for lining-out stock. Reconstruction days are just ahead and the call for good evergreens will be large, as nursery stocks are being rapidly depleted due to shortage of labor. The following are a few items taken from our 1943 wholesale catalogue:

	100	1000
Ajuga reptans rubra (Purpleleaf Bugle) Lovely rock plant and very complete ground cover. Broad, rich green, slightly bronzed foliage. Blue flower spikes 6 inches tall.		
1-year plants	$ 4.00	$32.00
Azalea mollis (Chinese Azalea) Has an irresistible appeal and is a great favorite to all who know it. We are offering a choice lot of plants, chiefly in the popular shades of salmon and orange.		
4 to 6 inches, once transplanted	6.00	48.00
6 to 8 inches, once transplanted	7.00	56.00
8 to 10 inches, once transplanted	8.00	64.00
10 to 12 inches, once transplanted	9.00	72.00
Erica carnea (King George) The red carnea. Grows 6 inches high with a spread of 2 to 3 feet. Foliage thick, dark green; flowers bright red, and completely cover the plant when in bloom in the spring.		
4 to 6 inches, once transplanted	6.00	48.00
6 to 8 inches, once transplanted	7.00	56.00
Genista sagittalis Hardiest of all evergreen creeping brooms. Height 6 inches, flowers yellow, stems flattened and twisted. Excellent ground cover.		
4 to 6 inches, once transplanted	5.00	40.00
Hedera helix (English Ivy) Well known, long lived, high climbing vine.		
1-year, once transplanted	5.00	40.00
Juniperus chinensis pfitzeriana (Pfitzer Juniper) This well known juniper can scarcely be excelled for terrace and mass plantings. Probably the most universal favorite of all spreading junipers.		
8 to 10 inches, once transplanted	10.00	80.00
10 to 12 inches, once transplanted	11.00	88.00
12 to 15 inches, once transplanted	13.00	104.00
15 to 18 inches, once transplanted	15.00	120.00
Juniperus contorta Creeping juniper with foliage similar to Koster Redcedar and Tamarix Savin Juniper. Height, 2 feet. A rare juniper of great merit.		
12 to 15 inches, once transplanted	13.00	104.00
15 to 18 inches, once transplanted	15.00	120.00
Juniperus horizontalis (Creeping Juniper) Creeping juniper forming a compact mat of charming, steel blue foliage, cypress-like in texture. Valuable ground cover in exposed situations. A great favorite.		
10 to 12 inches, once transplanted	11.00	88.00
12 to 15 inches, once transplanted	13.00	104.00
15 to 18 inches, once transplanted	15.00	120.00
Juniperus sabina tamariscifolia (Tamarix Savin Juniper) Color a bright cheerful, bluish-green throughout the year, symmetrical and compact in form and growth, not over 18 inches high. Hardy, and one of the finest creeping varieties. Decidedly ornamental in almost any planting.		
8 to 10 inches, once transplanted	$10.00	$80.00
10 to 12 inches, once transplanted	11.00	88.00
12 to 15 inches, once transplanted	13.00	104.00
Juniperus virginiana kosteri (Koster Redcedar) A creeping juniper with soft green and extremely dense foliage. Forms a wide-spreading perfect mound 2 to 3 feet high. The most perfectly shaped semicreeping juniper.		
8 to 10 inches, once transplanted	10.00	80.00
10 to 12 inches, once transplanted	11.00	88.00
12 to 15 inches, once transplanted	13.00	104.00
Lavandula pedunculata A fragrant dwarf lavender growing 2 feet high, spreading 3 to 4 feet. Blue to violet flower heads on stalks all summer. Splendid new evergreen for dry or waste places.		
10 to 12 inches, once transplanted	8.00	64.00
12 to 15 inches, once transplanted	10.00	80.00
15 to 18 inches, once transplanted	12.00	96.00
Leucothoe catesbaei (Drooping Leucothoe) Hardy semidwarf under-cover evergreen. White flowers in clusters. Large glossy foliage, turning to gorgeous shades of red and bronze in fall and winter.		
8 to 10 inches, once transplanted	8.00	64.00
10 to 12 inches, once transplanted	9.00	72.00
12 to 15 inches, once transplanted	10.00	80.00
15 to 18 inches, once transplanted	11.00	88.00
Thuja occidentalis (American Arborvitae) An old standard favorite, justly esteemed.		
4 to 6 inches, not transplanted	4.00	32.00
6 to 8 inches, not transplanted	5.00	40.00
Taxus baccata (English Yew) The old favorite hedge plant of English gardens.		
10 to 12 inches, once transplanted	10.00	80.00
12 to 15 inches, once transplanted	11.00	88.00
15 to 18 inches, once transplanted	12.00	96.00
18 to 24 inches, once transplanted	13.00	104.00
Xerophyllum tenax (Squaw Grass) A low fountain of grass 18 inches high, 2 to 3 feet across, having stems 3 to 5 feet high, crowned with creamy white heads of matchless beauty. An evergreen lily native to western mountains.		
6 to 12 inches, once transplanted	10.00	80.00

Sherwood Nursery Co.

EVERGREENS — Propagators and Growers

141 S. E. 65th Avenue •• Portland, Oregon

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glass with the stem of his pipe. "The first proposition we got on new business is the scrap drive," says Doc. "The civic club has been asked to handle the drive here in Riverbend township. They got us down for 200 tons of stuff and we have got to go to work and round it up. I am going to appoint two teams, that is I am going to appoint two team captains and they will choose their members. We will read the roll call and every other name will be on one side and the rest on the other side. After the drive is over the losing side which aint collected as much as the other side will have to give a supper for the other team. I will appoint Chas. Chestnut as captain of one team and Jake as captain of the other. They can go to work and divide up the territory as they see fit."

Doc says to me that I should win hands down if I could get Emil to loosen up on all the junk he has got around his place.

"Well if he dont give his scrap to my team I will quit and go to work in the windmill factory," I says.

On the way home I asked Emil if my team could get his scrap and then I would invite him as a special guest to the dinner.

"My scrap is worth a lot of money,

KOSTER NURSERY

LILACS, NAMED HYBRIDS— 23 varieties.

	100 rate	1000 rate
10 to 18 ins., 2-yr., tpl...	$0.18	$0.15
18 to 24 ins., 3-yr., tpl...	.30	.25
2 to 3 ft., 4-yr., tpl...	.40	.35
RED DOGWOOD—Grafted.		
10 to 20 ins., 1-yr., tpl...	.30	.25
15 to 30 ins., 2-yr., tpl...	.40	.35
JAPANESE MAPLE—Grafted.		
6 to 10 ins., 1-yr., tpl...	.30	.25
9 to 12 ins., 2-yr., tpl...	.40	.35

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Rhododendrons Azaleas, Kalmias, Pieris and **Hemlocks.**

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A complete line of well grown hardy plant material Evergreens and Lining-out Stock

Chas., the way the prices is now," Emil says, "so I aim to sell mine to a junk man that was there the other day. He offered me $18 for my stuff and he didn't see all of it either."

"Aint you got any civic spirit, Emil," I says, "what will the members in the civic club think of you if you dont give your stuff? You know we are going to use the money for the girl scouts and you dont want it known you are against the girl scouts do you Emil?" I says.

"Business is business, Chas.," he says, "I am going to get what I can for my scrap."

After I dropped him off at home I could see it was going to take some argument to get the old boy to loosen, so I worked out a idea to have his wife Emma put it over.

In the morning I called Mrs. Morse and told her to call up Emils Mrs. and tell her she heard Emil was giving all his scrap for the girl scouts. Mrs. Morse runs the girl scouts and Emma, that's Emils Mrs., generally does whatever Mrs. Morse says, on account of Mrs. Morse is among the 400 in Riverbend and her old man runs the bank.

The idea must of worked because that p.m. Emil called me out behind the barn to sort over the scrap.

"I decided to give my stuff for the drive, Charlie," he says, "only I'm going to sort it. Any stuff which I might need some time I will save out. Now lets go out and put it into two piles and then you can call the truck to pick it up."

Emil aint never had a tool shed so he just stores his machinery out in the open. Its handy to hitch onto that way, Emil says, without pawing over a lot of stuff and besides it wears out anyway so why put things under cover.

"Lets begin here by the corn crib," Emil says, "you bring up the stuff and I will decide if I want it or not. Begin there with that cultivator," he says, pointing to a clump of burdocks with a couple of pieces of rusty iron sticking out.

I finally got it loose and dragged it out in the open for Emil to look over. "I'm saving that," he says. "I'm going to take the wheels off sometime and then there is a couple of shovels there I could use. And one of the handles is good yet. Put that in the good pile."

"Emil," I says, "in the 20 years I been around here you aint never used that rig. Why dont you put that in, it will be a good 200 lbs. of old iron gone to a good cause."

"Dont argue, Charlie," he says. "Now get that old wheelbarrow and the corn planter. That wheelbarrow is good yet only it needs a little fixing."

"Fixing is right," I says. "You got that off a junk pile in the first place, Emil, the box is rusted thru and the axle is bent. Lets put it in the junk."

"If you had your way, Charlie, everything I got is junk. Just leave it to me my boy. Now bring the stuff out of the inside of the corn crib. Lets see whats in there."

All the afternoon we pawed over stuff and wound up with a pile of stuff that wouldnt go in a couple of trucks.

Next morning I called Sandy Bowers to send up one of the trucks from the windmill factory.

"I'll have it up right after dinner, Charlie," Sandy says. "You show the boys what you want to get rid of."

Emil was gone after dinner and I was busy with a customer when the truck come in, so I sent the truck back of the barn to load up. "Just take the little pile," I says. "The big pile dont go."

I didnt get around in back of the barn that day but the next morning I seen the whole works was gone. I'll bet Emil has sold the other big pile to the junk man after all, I thought, so I didnt say nothing.

Next morning I found out different. Emil jumped me the first thing. "What kind of a smart trick did you pull off on me, Chas. It aint so smart as you think because its up to you to get that stuff back and I aint fooling either. I want it all back or there will be plenty of trouble and I will sue the civic club and you too."

"Wait a minute," I says. "That aint none of my doings. All I done was to send the little pile. I dont know nothing about the other stuff. The truck from the windmill factory picked up the small pile and thats all I know about it."

Emil jumped in his truck and beat it for the salvage depot. Our team had their pile behind the fire barn and the other team had theirs in the school yard. Emil didnt find any of the missing junk in the lot by the fire barn so he beat it to the school yard. There was a pile of stuff there that wouldnt go on two freight cars and it was piled 40 feet high. There underneath on the very bottom he spied his corn planter. He was standing there by the pile wondering what to do next when another load come in with Jake driving the truck.

Emil lit into Jake right away. "Jake," he says, "theres some funny business going on here someplace. How does it come my corn planter and a lot of my good machinery is there at the bottom of the pile? I

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VIBURNUM BURKWOODI. Evergreen Burkwood V.
New, hardy evergreen cross of Carlesi, large, double, fragrant flowers.

	10	100	1,000
5 to 7 ins., 2-in. pots	$1.75	$15.00	$125.00
8 to 12 ins., 3-in. rose pots, grafts	2.75	25.00	.....

VIBURNUM CARLESI. Korean Spice V.

3 to 6 ins., sdlgs., 2-in. pots	1.25	10.00	.....
6 to 9 ins., sdlgs., 2-in. pots	1.75	15.00	.....
9 to 12 ins., 3-in. rose pots, grafts	2.75	25.00	.....

VIBURNUM DENTATUM. Arrowwood V.

3 to 6 ins., sdlgs.	....	2.50	22.50
6 to 9 ins., sdlgs.	.45	3.25	.....

VIBURNUM DILITATUM. Linden or Christmas V.

3 to 6 ins., sdlgs.	.45	3.50	32.50
6 to 9 ins., sdlgs.	.60	4.50	40.00
9 to 12 ins., sdlgs.	.75	6.00	.....

VIBURNUM FRAGRANS. Fragrant V.

5 to 7 ins., 2-in. pots	1.25	10.00	.....
8 to 12 ins., 3-in. pots, grafts	2.75	25.00	.....

VIBURNUM LANTANA. Wayfaring Tree V.

4 to 6 ins., sdlgs.	....	2.00	17.50
6 to 9 ins., sdlgs.	....	2.50	22.50
9 to 12 ins., sdlgs.	.45	3.50	32.50
18 to 24 ins., 3-yr. sdlgs.	.60	4.50	.....

VIBURNUM OPULUS. European Cranberry Bush.

6 to 9 ins., sdlgs.	....	2.25	17.50
9 to 12 ins., sdlgs.	.40	2.75	25.00
12 to 18 ins., sdlgs.	.50	3.75	35.00

VIBURNUM OPULUS STERILE. Common Snowball.

5 to 7 ins., 2-in. pots	.85	7.50	.....

VIBURNUM RHYTIDOPHYLLUM. Leatherleaf V.
Select large leaf, dark green type

5 to 7 ins., 2-in. pots	1.00	9.00	.....

VIBURNUM TOMENTOSUM. Double File V.

5 to 7 ins., 2-in. pots	.80	6.00	.....

VIBURNUM TOMENTOSUM PLICATUM. Snowball.

5 to 7 ins., 2-in. pots	1.00	7.50	.....

VIBURNUM WRIGHTI. Wright V.
Select type, cutting grown.

5 to 7 ins., 2-in. pots	1.25	9.00	.....

Complete list of lining-out stock.
Write for special prices.

BOHLENDER NURSERIES CO.

TIPP CITY, OHIO

want it back right and no fooling either."

"Whatever is in that pile stays there, Emil, and dont be picking over the stuff. We will have a guard here tonight to keep all the junk pickers away. Furthermore your Mrs. give me permission to take that stuff. I met her down town and she told me you was giving a lot of stuff for the drive for the girl scouts. I asked her if I could pick it up and she says to go ahead, that she seen it all piled up there by the barn. I picked it up and thats the end of it. Get out of the way while I dump this load. We got work to do." Jake dumped his truck and drove off leaving Emil standing there.

Emil dont give up easy, as the members know, so he drove over to see Doc Hart the president of the club. "Aint nothing I can do, Emil," says Doc. "You should take better care of your stuff if you dont want it hauled and besides your Mrs. give permission. We aint going to paw over all that stuff and besides what do I know if you really had all the stuff you say. The best thing, Emil, is to forget it."

Emil come home fit to be tied. First he checked up with his Mrs. and found how the mistake come about. So that relieved me of any responsibility though I was glad personally to see all the stuff gone as none of it was any good.

The drive went on for a week and the pile kept getting bigger and bigger. Emil was gone for a day or two to the city. He dressed up in his blue serge and his derby so I knew he was going to leave town, but he didnt say nothing to me or his Mrs. of what he was up to.

Come to find out later he was in Chicago getting posted on the prices of all kinds of scrap metals. That information come out later. The first thing I knew was when the committee met to sell the scrap. I was on the committee. We met with three junk dealers, and also as a big surprise to everybody there was Emil too. The junk dealers was all in cahoots we could see in a few minutes conversation, they made their offer and then up spoke Emil. He bid $50 more. The junk dealers was all trying to argue that most of the stuff wasnt worth hauling away and their offer was more than it was worth.

"Its a mighty queer doings when I have got to buy a whole junk yard to get my own machinery back," Emil says, "and the best you can do is to let me have the stuff if I am willing to buy it at a premium of $50."

The committee could see the point

MONEY IN CHRISTMAS TREES

To produce valuable Christmas Trees plant the best varieties in first-class lining-out stock. The following are some of the best varieties obtainable:

Abies balsamea (Balsam Fir)
A conifer of symmetrical, pyramidal growth. Has fairly dense fragrant foliage, making it very desirable for the Christmas Season. Needles are short and thick. Hardy to Labrador.

	100	1000
6 to 8 inches, once transplanted	$6.00	$48.00
8 to 10 inches, once transplanted	7.00	56.00
10 to 12 inches, once transplanted	8.00	64.00

Abies concolor (White Fir)
A tree of symmetrical growth and beautiful bluish foliage, very attractive at Christmas time. It has great resistance to heat, cold and drought, and these qualities combined with its beautiful landscape effect make it a truly desirable tree in many locations.

4 to 6 inches, not transplanted	$5.00	$40.00
6 to 8 inches, not transplanted	6.00	48.00

Picea excelsa (Norway Spruce)
One of the best known and one of the hardiest of conifers. Conical in form of growth and with deep green foliage. Does well in rather sterile soil, and defies the blast in cold exposed situations. Rapid growing, makes a good specimen tree for Christmas, or ornamental use.

6 to 8 inches, once transplanted	$6.00	$48.00
8 to 10 inches, once transplanted	7.00	56.00
10 to 12 inches, once transplanted	8.00	64.00
12 to 15 inches, once transplanted	9.00	72.00

Pseudotsuga douglasi (Douglas Fir)
One of the conifers of the Pacific Coast of great commercial value. We are offering the Colorado Silver-gray strain, considered the best for ornamental purposes, and the tree most used on the Pacific Coast for Christmas trees. It possesses great ornamental value when introduced into landscaping plans. In its native haunts it is frequently small, and the younger trees and groups of trees have a most impelling appeal both in form and coloring.

8 to 10 inches, once transplanted	$ 7.00	$56.00
10 to 12 inches, once transplanted	8.00	64.00
12 to 15 inches, once transplanted	9.00	72.00
15 to 18 inches, once transplanted	10.00	80.00

Christmas trees can be easily and profitably grown on rough or waste land, bringing good returns for very moderate outlay, at a time when interest centers in the Christmas Season.

Sherwood Nursery Co.

EVERGREENS — Propagators and Growers
141 S. E. 65th Avenue
PORTLAND - OREGON

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Juniperus Pfitzeriana

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Strong, 1-year-old potted 2¼-inch plants

$7.00 per 100 $60.00 per 1000

With every shipment of our 2¼-inch potted plants shipped by express we will give a WRITTEN GUARANTEE that each and every plant will live.

This is nice clean stock and will be accompanied by a Mississippi State Plant Board certificate of inspection.

J. B. BEALLE **Greenwood, Mississippi**

Note: Our terms are cash to everyone

LINING-OUT STOCK

	Per 100
European Mt. Ash, transp., 8 to 12 ins.	$2.00
12 to 18 ins.	3.50
18 to 24 ins.	4.50
Weeping Willow, Elegantissima, 2 to 3 ft.	3.50
Pin Oak, sdlgs., 12 to 18 ins.	4.50
Viburnum Lentago, transp., 2-yr., 8 to 12 ins.	5.50
Euonymus Carrierei, transp., 6 to 8 ins.	6.00
Euonymus Patens, transp., 2-yr., 8 to 12 ins.	6.00
Euonymus Vegetus, transp., 4 to 6 ins.	5.00
Barberry, Burtoni, New Globe Type, grown from cuttings, No. 189, transp., 6 to 9 ins.	30.00
Benzoin Aestivale, 12 to 18 ins.	3.00
Viburnum Burkwoodi, 1-yr., pot-grown	17.50

For a complete list of lining-out stock of Shrubs, Grafted Evergreens, Shade Trees and Finished Stock, send a penny card to

HILL TOP NURSERIES
Casstown, Ohio

BUXUS SEMP. WELLERI

(Weller's Hardy Northern Type)

Only Boxwood proven hardy in Northern States for Twenty Years.

Without Ball	Per 10	Per 100
6 to 8 ins. for hedging	$2.50	$20.00
8 to 10 ins. for hedging	3.00	25.00
10 to 12 ins. for window boxes	4.00	35.00

Lining-out grade, 1-yr., strong-rooted, 3 to 6 ins., $7.50 per 100; $60.00 per 1000

6 to 8 ins., $10.00 per 100; $85.00 per 1000

WELLER NURSERIES CO., Inc.
Holland, Mich.

Ask for our Perennial Catalogue.

of his argument all right and we agreed to take his offer provided it was a cash deal.

I was afraid Emil would flatten out there, but out he come with a greasy roll of bills big enough to choke a ox.

"You got to get the stuff out of here within a week, Emil," Doc Hart says. "Thats part of the deal."

"Thats the easiest part, Doc," says Emil. "Ill have it out of there in three days or quicker."

Everybody drove away and I went on out to the nursery. There in the office was Emil and the three junk men. They was shaking hands and everybody was well pleased.

"That will learn your smart alec friend Jake," Emil says to me, "there is two can play at his game. I found out there was a lot of copper and bronze in that pile of stuff and I got these men here to come in on the deal. They have agreed to take the stuff off my hands at a profit of $200 and they will also bring up my corn planter when they get thru, or a better one if they can find it."

So that is the real low down on Emil and the junk business. Once in a while he shows a streak of downright good business figuring.

OBITUARY.

J. V. Bailey.

J. V. Bailey, head of the J. V. Bailey Nurseries, Newport, Minn., died March 2 at the age of 69 after an illness of two months.

Mr. Bailey was born in Goodhue county, in Minnesota, February 10, 1874. He attended Newport schools and later graduated from the school of agriculture at the University of Minnesota in one of the school's earliest graduation exercises. He started out as a market gardener, but switched to the nursery business in 1906. He was quite successful and, with his two sons, operated one of the foremost nurseries in the state.

J. V. Bailey.

Mr. Bailey was well known as a judge at county fairs and at the state fair. He was superintendent of the horticultural department at the fairgrounds for many years. He was a member of the state fair board for eleven years and was president of the group for two years. Mr. Bailey helped to organize the Minnesota State Nurserymen's Association and was its first president. He was also the first president of the Washington County Fair Association and at one time was president of the St. Paul Growers' Association.

Mr. Bailey is survived by his widow, Mrs. Elizabeth Biery Bailey; two sons, Vincent, who was the 1942 president of the Minnesota State Nurserymen's Association, and Gordon; three daughters, Virginia Bailey and Mrs. Joseph P. Fritz, Newport, and Mrs. Thomas G. Scott, of Charleston, S. C.

Funeral services were held at St. Paul, March 5. Nurserymen from every part of Minnesota attended, and the officers of the Minnesota State Nurserymen's Association acted as pallbearers.

BOWLES PERIWINKLE.

Vinca minor, the common periwinkle, is a well known broad-leaved evergreen ground cover. Native of Europe and west Asia, it has become naturalized in this country and is one of our best plants for ground-cover purposes.

The clone, Bowles common periwinkle, which has been in the trade only a few years, appears to be somewhat superior to the species. The Bowles common periwinkle possesses a somewhat thicker leaf with more prominent netted veins and larger, brighter blue flowers which are produced over a longer period than those of the common periwinkle. The more prominent netted veins are the most easily recognized identification characteristic. The cover illustration plainly shows this characteristic.

The flowers are produced a little earlier than those of the species, and the petals are usually somewhat more notched at the apex.

Our experience has been that the Bowles common periwinkle establishes itself as readily as the common periwinkle and is possibly more resistant to blight. This seemingly greater resistance may be due to the fact that it has not been so commonly planted as the common myrtle. The myrtle blight causes extensive damage in some sections. Spraying

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S.—denotes Seedlings. T.—denotes Transplants.

PITCH PINE
Excellent Hard Pine Timber.

	Per 100	Per 1000
2-yr. S., (2-0), 4 to 9 ins.	$1.60	$ 8.00

PONDEROSA PINE

2-yr. S., (2-0), 3 to 5 ins.	2.00	10.00

SCOTCH PINE

2-yr. S., (2-0), 3 to 7 ins.	3.00	15.00

SPECIAL SCOTCH PINE
Grown from Certified Seed—This seed not obtainable today.

3-yr. T., (2-1), 4 to 8 ins.	5.00	25.00

AUSTRIAN PINE
Grown from Certified Seed—This seed not obtainable today.

2-yr. S., (2-0), 4 to 7 ins.	3.00	15.00

WHITE PINE
Excellent Timber and Christmas Trees

2-yr. S., (2-0), 2 to 4 ins.	2.00	10.00
3-yr. S., (3-0), 4 to 8 ins.	2.40	12.00

MUGHO PINE
This seed not obtainable today.

5-yr. T., (3-2), 6 to 9 ins.	16.00	80.00

AMERICAN RED PINE
One of the best for both Timber and Christmas Trees.

2-yr. S., (2-0), 2 to 4 ins.	2.00	10.00

BANKS PINE
Timber, also makes excellent Christmas Trees. Very fast growing.

2-yr. S., (2-0), 4 to 8 ins.	2.40	12.00

NORWAY SPRUCE
This seed not obtainable today.

2-yr. S., (2-0), 3 to 6 ins.	2.00	10.00
3-yr. S., (3-0), 6 to 12 ins.	3.00	15.00
6-yr. T., (4-2), 10 to 14 ins.	10.00	50.00

BLACK HILLS SPRUCE

3-yr. S., (3-0), 2 to 6 ins.	3.00	15.00

WHITE SPRUCE
This seed not obtainable today.

2-yr. S., (2-0), 3 to 6 ins.	2.00	10.00
7-yr. T., (3-4), 8 to 30 ins.	15.00	75.00

COLORADO BLUE SPRUCE

2-yr. S., (2-0), 2 to 5 ins.	2.00	10.00

SPECIAL COLORADO BLUE SPRUCE
Seed hand picked from Blue Trees only.

2-yr., S., (2-0), 2 to 5 ins.	2.50	12.50
3-yr., S., (3-0), 5 to 10 ins.	3.00	15.00
3-yr., T., (2-1), 4 to 8 ins.	4.00	20.00

ENGELMANN BLUE SPRUCE

2-yr., S., (2-0), 2 to 5 ins.	2.50	12.50

CANADIAN HEMLOCK

2-yr., S., (2-0), 2 to 4 ins.	3.00	15.00
4-yr., T., (2-2), 6 to 12 ins.	15.00	....

DOUGLAS FIR

2-yr., S., (2-0), 3 to 7 ins.	2.20	11.00

BALSAM FIR

2-yr., S., (2-0), 2 to 4 ins.	2.00	10.00

EUROPEAN LARCH

2-yr., S., (2-0), 5 to 10 ins.	2.00	10.00

PYRAMIDAL ARBORVITAE

3-yr., S., (3-0), 4 to 8 ins.	8.00	40.00

JAPANESE YEW

3-yr., T., (2-1), 2 to 5 ins.	10.00	....

AMERICAN ARBORVITAE

3-yr., S., (3-0), 4 to 8 ins.	6.00	30.00

WRITE FOR COMPLETE CIRCULAR AND SPECIAL XMAS TREE BULLETIN

MUSSER FORESTS, INC.
Indiana, Pa.

BOBBINK & ATKINS
Nurserymen and Florists
America's Leading Specialists in:—
Forcing Azaleas
Deciduous Azaleas
including the best named varieties of Mollis, Pontica and Rustica
Hybrid Rhododendrons
20 leading varieties
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all varieties, all sizes
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pink and white
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in varieties not obtainable elsewhere
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RHODODENDRONS,
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Rhodos
BOTH NATIVE
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KALMIA AZALEAS
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New and Standard Items.
Ask for List.
THE COTTAGE GARDENS Lansing, Mich.

PRIVET and BERBERIS
Splendid Stock
Write for Special Quotations
LESTER C. LOVETT
MILFORD DELAWARE

with Bordeaux mixture or fixed copper sprays has given partial success in preventing its spread once it appears. Using plants grown from cuttings of disease-free plants is recommended.

The Bowles common periwinkle will find its use as a ground cover for terraces, rocky knolls and steep banks. It also is excellent to use as a substitute for grass in heavily shaded areas beneath trees. L. C. C.

CONSIDER LABOR PRICES.

Local nurserymen and landscape servicemen met at Des Moines, Ia., the last week in February to discuss prices for labor on their jobs. The usual wide variation in charges was reported, and in some cases the margin between cost of the labor and the price charged for it was so small as to be pathetic. In view of the scarcity of labor, it was agreed a matter of necessity that a scale of charges be maintained which would make it possible to develop more pride in the work done. The item "Landscape Bill of 1871" in the American Nurseryman for February 15 came in for considerable attention.

IN COUNTRY'S SERVICE.

OTTO BERGMAN, Paramus, N. J., reports five of his men are in the service and all doing well.

LIEUT. JAMES F. KREWSON, Staff Sgt. Howard R. Krewson, Pvt. Hugo McCann and Pvt. Harrison L. Thompson represent James Krewson's Sons, Cheltenham, Pa., in the service.

WALTER W. HILLENMEYER recently received his lieutenant's commission and now is acting director of the tactical section of the officer candidate school at Fort Washington, Md. His wife is with him there.

ELWIN KRUSE, younger son of Ernest Kruse, of the Wheeling Nurseries, Wheeling, Ill., and treasurer of the Illinois State Nurserymen's Association, was recently inducted and is now at Camp Stewart, near Savannah, Ga. His elder brother, Robert, now a first lieutenant, is on maneuvers in Louisiana.

OWNER of the Laetz Hobby Farm, Route 4, Bay City, Mich., dealing in shrubs, perennials and evergreens, Staff Sgt. Theodore R. Laetz, Co. H., 134th Medical Regiment, Barracks 402, Fort Bragg, N. C., continues to keep in touch with the business and likes to spend his spare time reading the catalogues and other trade literature sent him.

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For southern or far western orders, stock can be shipped now.

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Cornus florida alba plena	3.00	27.50
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virginiana glauca	3.00	27.50
virginiana globosa	3.00	27.50
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virginiana schotti	3.00	27.50
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Magnolia alexandrina	3.50	32.50
halleana stellata	3.50	32.50
lennei	4.00	37.50
soulangeana	3.50	32.50
soulangeana nigra	3.50	32.50
Picea pungens moerheimi	3.50	32.50
Pinus cembra	3.00	27.50
Quercus robur fastigiata	4.00	37.50
Thuja occidentalis douglasi spiralis	2.50	22.50
occidentalis elegantissima	2.50	22.50
occidentalis lutea Geo. Peabody	2.50	22.50
occidentalis lutea B. & A. type	2.50	22.50
occidentalis nigra	2.50	22.50
occidentalis rosenthali	2.50	22.50
occidentalis wareana (sibirica)	2.50	22.50
orientalis aurea nana	2.25	20.00
orientalis conspicua	2.25	20.00
orientalis elegantissima	2.25	20.00
Taxus media browni	3.00	27.50
media hatfieldi	3.00	27.50
Tsuga canadensis pendula	3.00	27.50
Viburnum burkwoodi	3.00	27.50

TERMS—Prices in this list are net cash f.o.b. Mountain View, N. J., but the usual terms will be extended to those of established credit. No goods sent c.o.d. unless 25 per cent of amount is sent with order. Five of one kind will be billed at the 10 rate, 25 at the 100 rate, 250 at the 1000 rate. Packing extra at cost.

HESS' NURSERIES
Mountain View, New Jersey

This Business of Ours

Reflections on the Progress and Problems of Nurserymen

By Ernest Hemming

GREENS FOR FLORISTS.

The florists and nurserymen are supposed to be engaged in allied industries, yet there does not seem to be very close cooperation. On a recent trip to the metropolitan district I took occasion to visit some of the florists' shops and was surprised at the quantity of material that was shipped in from the west and northwest that could just as readily be grown in the eastern states. Incidentally, I watched a funeral piece being made up and noted that the gladioli and statice came from Florida, the acacia from California and the huckleberry from Oregon; the flowers composing that funeral piece certainly did some traveling before they got together under the skillful hands of the florist to carry their message of sympathy.

If residents of California, Oregon and Washington can grow or collect florists' materials and ship them to the east at a profit, more power to them; they deserve to succeed. But it started me thinking; perhaps I should say it started a brain storm.

Among the evergreen materials used in the background for the floral pieces I noticed kalmia, hemlock, spruce and juniper. These, I believe, are mostly collected stock and would hardly compare with choicer evergreens, say yews, cypress, cedar and thuja, if they were especially grown for the purpose. In regard to the cost and returns, I am pretty well convinced that a planting of such evergreens for cutting to supply the florists' trade would compare more than favorably with the same acreage planted in peaches or apples. Anyway, it would be well worth consideration by the nurseryman who is situated in the country where land is cheap and who has the "know how."

Another item that was brought to mind was Ilex verticillata, deciduous holly, which has a ready sale at Christmas if available. There may be acres of it in the Dismal swamp, but if a nurseryman has a piece of low ground of not much use for growing anything else, a planting of this holly would prove a good investment. It would take perhaps from six to eight years from seeds and considerable labor to get a plantation started before it would bring in any revenue, but after that I think it would prove a promising investment.

In addition to the above-mentioned evergreens that could be used as florists' materials, there are a number of evergreen shrubs that hold possibilities if produced in sufficient quantities and grown for the purpose.

South of the Mason and Dixon line, especially along the coast, Ligustrum lucidum, wax-leaf privet, is a free grower and wonderfully decorative, as are also Euonymus japonica and its variegated forms. Both these subjects would be far superior to the collected kalmia.

Cotoneaster horizontalis is a rather difficult subject, but its peculiar habit of growth and red berries would soon win its way with the florists if it were made available.

Of course, boxwood is in common use, but the supply is limited to what can be cut from old plants on private places, and there is no attempt to grow it for the florists' trade. True, the old English box would be a long-time proposition, as its annual growth is only about two inches a year, but the common boxwood makes an annual growth of from six to eight inches and the tree boxwood from eighteen inches to two feet, and if a good type were planted it would make wonderful decorative sprays.

Up to the present, the market seems to have depended upon collected evergreens and ferns, but since such florists' materials are now being shipped from the far west, it does seem there is an opportunity for a closer cooperation between the florists and nurserymen in the east. E. H.

SOUTHWESTERN NEWS.

Evert Asjes, Jr., of Rose Hill Gardens, Kansas City, Mo., gave a talk March 1 before the Kansas City Garden Club at the Westminster Congregational church. His subject, flowering shrubs, was illustrated by Kodachrome slides.

Scott Wilmore, of the W. W. Wilmore Nurseries, Denver, Colo., says that the labor situation in that part of the country has eased up considerably since last fall. There is still no surplus, but it is now possible to find men.

The first week in March was marked by heavy snows and low temperatures. The all-time low record was broken twice. At St. Joseph, Mo., the thermometer reached 12 degrees below zero March 8, with con-

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Rhododendrons

Kalmia — Azaleas

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PLATANOIDES—
NORWAY MAPLES

SPECIAL	Per 100	Per 1000
2 to 3 ft.	....	$35.00
3 to 4 ft.	....	50.00
4 to 5 ft., trans.	$18.00	....
5 to 6 ft., trans.	22.00	....
*6 to 8 ft.	25.00	....

[*Not very straight trunks.]

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No deliveries made until weather permits. After the middle of March.

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VIBURNUM BURKWOODI

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Pinkish white flowers in May

Extra fine field-grown own-root stock. No understocks to sprout.

	Per 10	Per 100
18 to 24 ins., bare roots	$10.00	$ 85.00
18 to 24 ins., B&B	12.50	110.00
2 to 3 ft., B&B	17.50	150.00

Heavy pot-grown stock for lining-out.

	Per 100	Per 1000
2½-in. pots	$25.00	$225.00

F.O.B. Dayton, Ohio.

Packing extra at cost.

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Dayton, Ohio

SPRING SURPLUS

100 **Red Oak,** ea. 7 to 8 ft.
8 to 9 ft., and 9 to 10 ft.
300 **Enkianthus,** 4 to 5 ft.
5 to 6 ft., and 6 to 7 ft.
200 **Wistaria Multijuga,** 5 to 7 ft.
100 **Wistaria Chinensis,** Spec. 6x6 ft.
75 **Liquidambar,** 6 to 8 ft., br.
100 **Azalea Vaseyi,** ea. 1½ to 2 ft.
2 to 3 ft., and 3 to 4 ft.
50 **Juniperus Rigida,** 6 to 8 ft.

Other good items, write for prices.

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RHODODENDRON HYBRIDS. Grafted, hardy varieties only.

AZALEA KAEMPFERI HYBRIDS. Named varieties; the hardiest of all Azaleas for landscape work.

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Hardy Ornamentals

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Nursery Stock at Wholesale Only.
ARTHUR DUMMETT
61 W. Grand St. Mount Vernon, N.Y.

siderable frost on the ground. Old-time nurserymen cannot recall a time of such long-continued unfavorable weather for digging and planting. In the Kansas City area nurserymen often plant during February, but this year it will be well into March before they can begin.

A school for victory gardeners was held March 8 in the municipal auditorium at Topeka, Kan., under the auspices of the Topeka Horticultural Society. Franklin Rose, landscape architect for the state highway commission, is president of this organization.

Virgil O. Grandfield has established the Little River Nurseries at Wichita, Kan., near the place where Fifty-third street crosses the Arkansas river.

George Humfeld, of Humfeld's Flowers, Anthony, Kan., has sold out to James E. Chism, Conway Springs, Kan. The latter has been operating the Conway Springs Nursery, which he will move to Anthony. The entire florists' and nursery business will be called Humfeld's Flowers.

Recent successful bidders on roadside improvement projects were: Tole Landscape Service, Independence, Kan., for Woodson, Montgomery, Rice, Cowley and Marion counties; Cook & Cone, Ottawa, Kan., for Norton county; O. G. Brommer, Belleville, Kan., for Republic and Ellsworth counties; Oscar H. Schmidt, Inc., St. Joseph, Mo., for Pottawatomie and Wyandotte counties; Sutton Nurseries, Independence, Kan., for Wyandotte and Leavenworth counties.

E. O. Nord, who has been operating Nord's Upland Empire Nurseries, Boise, Ida., is now in the employ of Marshall's Nurseries, Denver, Colo., as a salesman. He intends to return to Boise in the spring and hold a closing-out sale.

The Wichita Nurseries & Seed House, Wichita, Kan., are celebrating their fiftieth anniversary this month. A full-page advertisement appeared in the Wichita Eagle March 14. Albert L. Schell, president, is the second generation in the business, his father having founded the firm.

PAINT KILLS PESTS.

Last summer a St. Louis firm introduced an insecticide screen paint which kills flies, mosquitoes, moths, gnats and similar insects. Wiped on the screen, it is invisible. It kills by contact the insects that light on either side of the screen. An application is effective for several days. From results reported, the product would seem to have great possibilities.

SEEDS

Prices f. o. b. New York.

	¼ lb.	1 lb.
Acacia baileyana	$1.00	$ 3.50
Acacia melanoxylon	1.25	4.50
Acer negundo	.50	1.75
Albizzia lophantha	.90	3.25
Aleurites fordi, Tungoil tree	.25	.70
Amelanchier alnifolia, d.b.	.40	1.45
Arbutus unedo, c.s., per oz., 50c		
Arctostaphylos glauca, d.b.	.50	1.80
Azalea mollis, c.s., per ¼ oz., 95c		
Berberis thunbergi, d.b.	.25	.70
Betula papyrifera, c.s.	.65	2.25
Calycanthus floridus, c.s.	.50	1.75
Caragana pygmaea, c.s., per oz., $1.50		
Casuarina cunninghamiana, per oz., 85c	3.00	....
Celtis occidentalis, d.b.	.25	.90
Ceratonia siliqua, c.s.	.65	2.25
Chaenomeles lagenaria rubra, c.s.	1.40	5.00
Chamaecyparis lawsoniana	1.00	3.50
Chionanthus virginicus, c.s.	.50	1.65
Cladrastis lutea, c.s.	.65	2.25
Cornus alba sibirica, c.s.	.65	2.25
Cornus alternifolia, d.b.	.60	2.10
Cornus florida, d.b.	.25	.85
Cornus florida rubra, d.b.	.35	1.10
Cornus mas, c.s.	.70	2.50
Cornus rugosa, c.s.	.60	2.10
Cornus stolonifera flaviramea	.65	2.25
Cunninghamia lanceolata	.90	3.25
Cupressus arizonica	1.00	3.50
Cupressus goveniana	1.25	4.50
Cytisus scoparius	.85	2.00
Eriobotrya japonica, c.s.	.45	1.50
Eucalyptus globulus	2.05	11.00
Eucalyptus viminalis	2.50	9.00
Euonymus atropurpureus, d.b.	.50	1.75
Euonymus yedoensis, d.b.	1.00	3.50
Fagus grandifiora	.50	1.75
Fatsia japonica, 1000 seeds, $1.75		
Gardenia thunbergia, 100 seeds, $2.50		
Gaultheria shallon, d.b., per oz., $1.25		
Holodiscus discolor	1.65	6.00
Jacaranda acutifolia (ovalifolia), 1000 seeds, $1.50		
Juniperus communis, c.s., per oz., 45c	1.60	6.00
Juniperus communis depressa, c.s., per oz., 50c	1.75	....
Juniperus pachyphloes, c.s., per oz., 50c	1.75	....
Liriodendron tulipifera	.25	.85
Lonicera morrowi, yellow, c.s.	1.40	5.00
Lonicera tatarica, c.s.	1.25	4.50
Maclura pomifera, Osageorange, c.s.	.35	1.20
Magnolia fraseri, c.s	1.55	5.50
Magnolia virginiana (glauca), c.s.	.65	2.25
Mahonia nervosa, d.b.	1.25	4.50
Morus rubra, c.s.	.90	3.25
Myrica cerifera, d.b.	.70	2.45
Nandina domestica, red, d.b.	.45	1.50
Osmaronia cerasiformis	1.85	6.50
Ostrya virginiana, d.b.	.80	2.75
Phoenix dactylifera	.55	1.85
Picea engelmanni	1.40	5.00
Picea glauca densata (Black Hills White Spruce)	2.35	8.50
Picea pungens (Colo.)	1.75	6.25
Picea pungens glauca	2.75	10.00
Pieris japonica, c.s., per oz., $2.25		
Pinus attenuata	1.65	6.00
Pinus banksiana	1.20	4.25
Pinus echinata	2.50	9.00
Pinus ponderosa	.85	3.00
Pinus pungens	2.35	8.50
Pinus resinosa	2.20	8.00
Pinus rigida	.65	2.25
Pinus strobus	.65	2.25
Pinus sylvestris	2.50	9.00
Prunus cerasifera (Myrobalan), c.s.	.35	1.10
Prunus Hansen Bush Cherry, c.s.	.70	2.50
Prunus mahaleb, c.s.	.40	1.30
Prunus serotina, c.s.	.40	1.40
Prunus virginiana, c.s.	.50	1.75
Rhododendron, maximum, c.s., per oz., $1.50		
Ribes lobbi, c.s., per oz., $1.50		
Robinia pseudoacacia, c.s.	.25	.75
Rosa multiflora, thornless, c.s.	.70	2.50
Rosa multiflora, thorny, c.s.	.80	2.75
Sambucus canadensis, c.s.	.55	1.90
Sambucus racemosa, d.b.	.65	2.25
Schinus molle	.60	2.10
Schinus terebinthifolia	1.45	5.25
Sequoia gigantea	2.75	10.00
Shepherdia canadensis, d.b.	1.25	....
Spiraea douglasi, c.s., per oz., $3.25		
Syringa villosa	2.00	....
Thuja orientalis aurea	1.05	3.75
Thuja orientalis aurea conspicua	1.00	3.60
Thuja orientalis aurea nana	1.05	3.75
Tsuga canadensis	1.90	6.75
Tsuga carolinfana	1.95	7.00
Ulex europaeus	1.10	4.00
Viburnum alnifolium, c.s., per oz., 55c		
Viburnum cassinoides, c.s., per oz., 80c		
Viburnum lantana, c.s., per oz., 50c		
Viburnum molle, c.s., per oz., 60c		

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HERBST BROTHERS
92 WARREN STREET NEW YORK, N. Y.

Yellow Flowers for Small Rock Garden

By C. W. Wood

Excepting the new hybrids, geum is a much-neglected genus. I suspect that one reason for the neglect can be traced to the fact that G. chiloense and most of its early garden forms were too delicate for northern winters. Most of the new varieties are, however, quite able to take care of themselves, even in latitude 45 degrees north, if they are given half a chance. That is beside our present subject, though, which concerns itself with yellow-flowered kinds which are small enough for the garden of limited space.

Although there are several which could be mentioned as suitable candidates, only two, Geum montanum and G. Gladys Perry, appear in my catalogue file. The first of these is a pretty ornament throughout the year, with quaint, puckered, shining leaves and large, bright yellow "roses" on 3 to 4-inch stems, abundantly in late spring (part of May and June here in north Michigan) and often a scattering of color through the summer, if it does not become too dry. I notice that some of the books recommend full sun for this plant, but that surely does not apply to the climate of the middle west. Here it has to have at least half shade to make it happy at all, and even then it suffers during hot, dry weather unless the hose is turned on it occasionally. Gladys Perry needs the same situation, according to my experience. Its tufts of leaves are less ample than the other, but what it lacks in quantity of foliage it makes up in number of flowers. These are semidouble orange-yellow, on stems to three or four inches in height, and are produced in such numbers as to make the plant a sheet of color. The species may be grown from seeds with ease; the hybrids are easily propagated from divisions.

Since writing the foregoing, I noticed a source of supply of G. rossi, a pretty Rocky mountain species which I had years ago from the late D. M. Andrews. As I remember it (my notes on its behavior could not be located at this time), the plant was resentful of our hot, dry summers, but was fairly contented on the north side of a lilac hedge, where it received only filtered sunshine and frequent irrigation. The plant stands out in my mind as a lovely golden-flowered avens, blooming in early summer. It would be worth a trial by all growers who are interested in unusual plants.

I am sorry that my experience with St.-John's-worts gives so little encouragement to northern growers. It is true, nevertheless, that few of the available kinds are to be trusted in the open this far north. There are exceptions, though, and brilliant exceptions at that. One of these is Hypericum coris, a tiny shrub from six to ten inches in height which makes the summer months (usually from June into August here) more colorful with its tasseled yellow flowers. I notice that H. repens appears in a few American lists, often with the notation that it is like H. olympicum, which makes one think that it may not be the true plant. If it is the real Oriental repens, it is one of the best of the small St.-John's-worts, growing little more than four inches tall, rooting as it spreads and sending aloft typical St.-John's-wort flowers throughout most of the summer. It proved to be hardy here, during trials several years ago; so I should expect it to stand the winters of most other northern sections. On the other hand, if it proves to be the Himalayan H. reptans, it will likely suffer badly from exposure, perhaps passing out entirely unless well protected, and it will probably confine its flowering period to the first month of summer. Hypericums grow readily from seeds, and the ones mentioned may also be divided.

I remind myself often that my lack of enthusiasm for most of the small inulas is no reason why they should not be recommended to gardeners who lack that prejudice. Anyway, I notice that summer customers nearly always admire the cheerful disposition of I. ensifolia, whose summer-long production of large, yellow daisies is accomplished under the most adverse conditions. Contrary to the authorities who give it a height of two feet, it seldom exceeds eight inches here. It is suited to small gardens, therefore, and would be welcomed by most gardeners. If I. acaulis were available (which it seldom is), it, with its height of two or three inches, would be the one for gardeners with but limited space. My notes tell me it needs some attention during dry

100,000 YEW SEEDLINGS

THESE are the last upright Yew seedlings you'll see for many a year. 95% true upright collected in pure forest stands in Japan. The most useful of all Yews—hedges or specimens.

NOW 3 to 5 inches, beginning to branch (see photo), heavier than ordinary.

$4.00 (100), $30.00 (1000). [Case of 3000 for $82.50]

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TREES
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Carlots — a specialty
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Double rose Flowering Cherry
KWANZAN
Ready for immediate shipment

	Per 10
2 to 3 ft.	$ 5.00
3 to 4 ft.	7.50
4 to 5 ft.	10.00
5 to 6 ft.	12.50

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EVERGREENS—With a large assortment of Pyramidal Arborvitae and Pfitzer Juniper in grades at attractive prices.

SHRUBBERY SHADE TREES APPLE, PEACH, PEAR AND SOUR CHERRIES in assortment.

BARBERRY, 3-yr. transplanted—red and green.

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See our Ad of March 1 for Outstanding Perennial Novelties

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Due to our location we can furnish dormant stock up to June 1 or later.

PERENNIALS

Gaillardia Portola hybrids, 2-yr. Myosotis Palustris (Forget-me-not), Pyrethrum dark shades, Lupine Polyphyllus Russell and Robinson hybrids, 2 and 3-yr. Carnation Grenadin red, yellow and pink. Diener's Giant Shasta Daisy, 2-yr. Phlox Subulata lavender. Sedum Stolonifera Rosea and many other varieties. Strawberries Sen. Dunlap, Beaver, Dorsett, Waymata everbearing.
These are husky, transplanted plants.

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ACER RUBRUM COLUMNARE, column red maple
CERCIS CANA. ALBA, white Am. cercis
CORNUS FLO. SALICIFOLIA, rare dogwood
BUXUS MICROPHYLLA COMPACTA, rare hardy box
Many other varieties. Send for trade catalogue

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SIROIS NURSERY
ST. ANNE, ILLINOIS

Evergreens — Shade Trees

Can supply in quantity;
Chinese Elm — Lombardy Poplar
Arborvitae — Junipers

weather, but that can usually be overcome by incorporating leaf mold or peat in the soil. Like many composites, inulas come readily from seeds.

I am glad for the opportunity to say a good word for that prince of small yellow-flowered irises, I. arenaria, the sand iris. As the name implies, it grows naturally in sandy soil; so, when it is transferred to the garden, it should be grown in a light, well drained medium. Give it that and full sun, and there should be no trouble enjoying its bright, pale golden blooms every April for years to come. I have read that it likes a fairly rich soil under the top layer of sand, but that seems to make little difference in the debilitated appearance of the plant after it has put on a prodigious flowering performance. If a generous amount of leaf mold is worked into the soil around the plant after it is through blooming, it seems to give it the impetus to come to life again. Here is an iris small enough for the smallest garden, lovely enough for any garden and easy enough for the merest tyro. Without going into details, I should like to mention a few dwarf bearded hybrids which have been good sellers here: Betsy Presby, bright yellow; Golden Dream, soft yellow; Goldfinch; Glee, light yellow; Lutea, deep yellow; Nugget, soft yellow; Prairie Gem, deep yellow, and Ylo, bright yellow. One might suspect from these brief descriptions that there are duplicates in the list, but they are all distinct, not only in color, but also in blooming time, height or shape of flowers.

Although the yellow-flowered flaxes are generally included in lists of plants for small gardens, I am leaving them out because the available kinds are overly large for the purpose. For a different reason (the difficulty of transplanting while the plants are in active growth), the yellow-flowered gromwells are also omitted. But despite its large size, Onosma tauricum is given a place, because it possesses so many intriguing characteristics, including a summer-long blooming period, that it attracts buyers throughout the year. And that would not be taking advantage of one's customers, either, for the plant will, if given a high place in the rockery or wall, take up little more room than ordinary plants. Certainly, its spraying tufts of silvered leaves and golden-drop flowers would be worth twice the space it needs. It is a plant of great charm, easily grown from seeds, when available, or from cuttings of new growths during summer.

It has been a long time since I sang the praises of the alpine poppy, Papaver alpinum; so I shall take this op-

MICHIGAN-GROWN SHADE TREES
For Spring 1943 Delivery

ORNAMENTAL TREES

	Per 100
Acer Ginnala, Amur Maple	
3 to 4 ft.	$ 48.00
4 to 5 ft.	68.00
Betula, American White Birch	
4 to 5 ft.	35.00
5 to 6 ft.	40.00
6 to 8 ft.	60.00
8 to 10 ft.	90.00
Gleditsia, Triacanthos Inermis Thornless Honey Locust	
6 to 8 ft.	75.00
8 to 10 ft.	100.00
Platanus Occidentalis, American Planetree	
8 to 10 ft.	90.00
10 to 12 ft.	125.00
1½ to 2-in.	225.00
Populus Alba Bolleana, Bolleana Poplar	
6 to 8 ft.	50.00
8 to 10 ft.	60.00
10 to 12 ft.	80.00
Populus Nigra Italica, Lombardy Poplar	
8 to 10 ft.	30.00
10 to 12 ft.	40.00
1¼ to 2-in.	50.00
2 to 2½-in.	75.00

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	Per 100
Cornus Alba, 3 to 4 ft.	$ 22.50
Cornus Elegantissima, 2 to 3 ft.	27.50
Cotoneaster Divaricata	
2 to 3 ft.	25.00
3 to 4 ft.	30.00
4 to 5 ft.	35.00
Hydrangea P. G.	
2 to 3 ft.	22.50
Lilac Villosa, Late White Lilac	
2 to 3 ft.	30.00
Philadelphus Virginalis	
2 to 3 ft.	27.50
3 to 4 ft.	35.00
Rhus Cotinus, Purple Fringe	
3 to 4 ft.	30.00
4 to 5 ft.	35.00
5 to 6 ft.	45.00
Rosa Rugosa Rubra	
2 to 3 ft.	25.00
18 to 24-in.	20.00
Viburnum Opulus, 2 to 3 ft.	30.00
Dentatum, 3 to 4 ft.	30.00
Lantana, 4 to 5 ft.	40.00
Americana, 2 to 3 ft.	25.00
Lentago, 3 to 4 ft.	35.00
Sterile, 4 to 5 ft.	45.00

We have many other varieties of trees and shrubs in quantity and we cordially invite your inquiries on any items in which you are interested.

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Romeo, Michigan

EVERGREEN LINING-OUT STOCK
From beds lined out Spring 1942

	Per 100
JUNIPER—6 to 9 inches	
3000 Andorra	$10.00
1000 Bar Harbor	10.00
3000 Pfitzer	12.50
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1000 Sabina Hor. Glauca	10.00
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THUJA—6 to 9 inches	
1500 Pyramidalis	10.00
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TAXUS—2-inch pots, 6 to 9 inches	
1000 Capitata	15.00
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Complete line of 1943 Evergreen grafts and rooted cuttings ready May 1. Also 1-year fruit and ornamentals.

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ELMHURST NURSERIES
245 Forest Ave., Elmhurst, Ill.

portunity to remind growers how much they are missing in beauty and perhaps in quick turnover if they neglect these little elves. The species has varied into a myriad forms, as it has traveled over the high places of the world, but it is always the same ethereal beauty, be it the orange-yellow from the highest moraines of the mountains of central Europe (P. rhaeticum of some botanists) or the white-flowered P. burseri from the southern Alps. I have no idea where the different forms are to be found, now that war has shut off European markets, but seeds of garden saving are to be had in this country and, although they may bring one many shades not known in the true alpine poppy, because of their crossing with P. nudicaule, and a height too great for the true thing, they will do well for the time being. This is not a plant for mass production, for its very nature precludes that, but it is, according to my experience, a fine thing to grow in pots (3-inch rose pots by preference) for sales during the early summer, while it is in bloom. The only way to make an alpine poppy happy is to give it a home made up mostly of sand, with just enough leaf mold added to furnish a little nourishment. It blooms within ten weeks of sowing; so one can arrange plantings to come in at intervals.

Potentilla is a vast race of weeds, with a few good garden plants thrown in for good measure. Even with our subject restricted by the term "small," there are still too many for all to receive attention here, especially when I want to devote a little space to a small form of the shrubby cinquefoil, P. fruticosa montana. The species is widespread throughout the north temperate zone, growing in some form from marshy places in lowlands to almost alpine situations. Our present plant is one of the latter, with its stature reduced to about ten inches. But it has retained the typical yellow "roses" of the type, large for the size of the plant, and the same summer-long blooming habit of many fruticosa forms. Its upright growth fits it for our present needs. It is easily grown in ordinary garden soil, either in full sun or part shade. I do not know how it reproduces from seeds, though I suspect it would come true; however, it is so easily grown from cuttings of the little "buttons" of foliage rubbed off with a heel in summer that seedage would not be necessary.

Other good yellow-flowered cinquefoils suited to the small rock garden might include the following: P. fragiformis, most desired for its large, silky, silvery strawberry leaves, though its yellow flowers in June are not without merit, needs good drainage, six inches; P. cinerea, small creeper with yellow flowers, spring and autumn, two inches; P. nevadensis, pretty foliage, silky underneath, and yellow flowers throughout most of the summer, four inches, and P. pyrenaica, a Spanish beauty, with golden flowers in midsummer (July here), five inches. All these cinquefoils are easily grown from seeds, and most divide readily.

It is unfortunate that so many gardeners look upon ranunculus with awe, either because they have utterly failed with one of the incorrigibles, such as R. glacialis, or have been run out of their garden by one of the awful pests, such as R. repens, whose common name, Meg-many-feet, tells one what sort of behavior to expect. Not all is gloom among the buttercups, however, for we have at least one kind, R. montanus, which is not only well behaved, but reacts to garden conditions with charming grace. We grow it here in the light shade of an open-headed apple tree in extremely leafy soil, where it needs no more than an occasional soaking during long dry periods. Buttercups are difficult from seeds unless planted as soon as ripe, but this one may be multiplied rapidly from divisions. It makes pretty tufts of bright green leaves, over which shine myriads of golden buttercups, on 5-inch stems, for a month or more, commencing in late May, and perhaps again in autumn.

Although the small rock garden is no place for the bad actors among the stonecrops, I should hate to get along without a few of them. Other gardeners must feel the same way, too, for I find no trouble selling small clumps of the best behaved to most visitors to the nursery. The trouble is that few of the yellow-flowered kinds are well behaved. However, there is a small form of S. anopetalum available in some nurseries, which answers our purpose well, with its tiny tufts of bluish leaves and pale straw-colored flowers on 5-inch stems in early summer. And then one could easily make room for the well known S. sexangulare. It is true that its mounds of deep emerald are expanded rapidly, but surely not so fast that the gardener could not keep up with it.

All of which brings us to viola and little room in which to accommodate it. First of all we have the garden hybrids, such as apricot Chantreyland

EVERGREENS

LINING-OUT STOCK TRANSPLANTS

	100 rate	1000 rate
JUNIPER Pfitzeriana		
2000 2-yr., Tr., 8 to 10 ins.	$0.15	$0.12½
2000 2-yr., Tr., 5 to 8 ins.	.10	.08
1400 2-yr., Tr., 9 to 12 ins.	.18	.15
Juniper Pfitzeriana Aurea Hilli		
	100 rate	
200 2-yr., Tr., 8 to 10 ins.	$0.12	
Juniper Sabina		
100 2-yr., Tr., 12 to 15 ins.	.18	
TAXUS		
Cuspidata, spreading		
200 2-yr., Tr., 8 to 10 ins.	.16	
50 3-yr., Tr., 5 to 8 ins.	.12	
Media Hicksi		
100 2-yr., Tr., 12 to 15 ins.	.25	
75 2-yr., Tr., 8 to 10 ins.	.17	

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Packing free.

AUGUSTINE NURSERIES

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OUR SPECIALTY . . . .

Shade Tree Whips . . . a timely finished product saving 2 to 4 yrs. growing effort . . . excellent variety.

A very complete line of
ORNAMENTAL TREES, SHRUBS AND EVERGREEN SHRUBS
including many scarce items. Send for first 1943 list.

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30,000 NORWAY SPRUCE

4-year Transplants (2-2)

	Per 100	Per 1000
3 to 8 ins.	$3.75	$16.00

200,000 COLORADO BLUE SPRUCE

2-year seedlings (2-0)

	Per 100	Per 1000
0 to 2 ins.	$2.00	$9.00

Seedlings grown from seeds from cones hand-picked from blue trees in Colorado.

Bed-run

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Shipped April 1 to May 15.

Prices of other Pines, Spruces and Firs on request.

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	Each
VIBURNUM BURKWOODI 10 to 12 ins., own-root, B&B	$0.45
CORNUS FLORIDA RUBRA 18 to 24 ins., grafts, B&B	.90
KOSTER BLUE SPRUCE 1-yr., bed, B&B	.50
DAPHNE CNEORUM 8 to 10 ins., B&B	.60

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EVERGREEN LINERS

XX FRAMES

Andorra Juniper, 8 to 12 ins.	$0.08
Squamata Var. Juniper, 6 to 8 ins.	.08
Retinospora Plumosa Aurea, 8 to 10 ins.	.08
Pyramidalis Arborvitae, 8 to 10 ins.	.10
Pyramidalis Arborvitae, 10 to 14 ins.	.12
American Arborvitae, 8 to 12 ins.	.10
Globe Arborvitae, 6 to 8 ins.	.08
Taxus Cuspidata, 5 to 8 ins.	.06
Taxus Cuspidata Capitata, 5 to 7 ins.	.08
Taxus Hicksi, 5 to 7 ins.	.08

XXX FIELD GROWN

Andorra Juniper (spread), 8 to 10 ins.	.10
Andorra Juniper (spread), 10 to 12 ins.	.15
Andorra Juniper (spread), 12 to 15 ins.	.20
Pyramidalis Arborvitae, 12 to 15 ins.	.20
Pyramidalis Arborvitae, 15 to 20 ins.	.25
Globe Arborvitae, 8 to 10 ins.	.12
Globe Arborvitae, 10 to 12 ins.	.15
Retinospora Plumosa Aurea, 12 to 15 ins.	.15
Taxus Cuspidata, 8 to 10 ins.	.12
Taxus Cuspidata, 10 to 12 ins.	.15
Taxus Hicksi, 8 to 10 ins.	.15

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JUNIPERS

Grafted on Juniperus Virginiana understocks, available for spring delivery.

These plants are grown in 2½x2¾-in. pots.

$19.00 per 100; $180.00 per 1000.

Virginiana Glauca, Canaerti, Burki, Ketseleeri, Pyramidiformis, Smithi, Pfitzeriana.

These prices are F.O.B. Louisville, Ky. Boxing extra at cost.

LOUISVILLE NURSERIES

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Evergreens in Quantity

Pfitzer, all sizes; **Andorra, Savin, Canadian Vase, Irish, Fastigiata, Canaert, Burk** and **Dundee Junipers; Berckmans, Compact** and **Rosedale Arborvitaes; Scotch** and **Austrian Pines, Norway Spruce, Mahonia, Abelia, Ligustrum** and many others. **Redbud, Pink Dogwood, Weeping Cherries** and **Chinese Elms.** Visit our nursery. Discount on truck and car loads.

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South's Largest Florists and Nurserymen

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Leghorn's Evergreen Nurseries Cromwell, Conn.

and the compact Yellow Gem, which deserve a place in any planting, be it large or small. But they need not occupy our attention longer, for they are well known to most growers. There are a few natives, however, which deserve better from gardeners than they have ever received. A little eastern woodlander, V. rotundifolia, for instance, is exactly suited, by its small stature, restrained growth and bright yellow flowers in early spring, to our purpose. It would be a good local seller, I am sure, if it were offered. The plains states have another, V. nuttalli, which I have found easy to grow and worthy of culture. And the west is full of good ones, including V. chrysantha, V. glabella and V. lobata, which await our calling. Good native violets are more and more attracting the attention of gardeners. May I suggest that you get out your copy of Bailey's Cyclopedia and commence to search for the good ones mentioned there? They grow readily from seeds sown as soon as ripe or in autumn in an outdoor frame.

MEET AT PITTSBURGH.

The Western Pennsylvania Nurserymen's Association held a successful meeting February 16, at Webster Hall hotel, Pittsburgh. The attendance was good, and everyone enjoyed the meeting.

The chief topic among the members was labor. Everyone seemed to have more than enough work, but felt that the shortage of labor would curtail operations considerably. However, optimism prevailed and the general opinion was that enough labor, of a kind, would be secured to give a fairly good season.

The two speakers on the program, Robert P. Meahl, assistant professor of nursery industry, Pennsylvania State College, and Henry R. Eby, Allegheny county agricultural agent, gave interesting and informative talks. Mr. Meahl spoke on "Ornamentals" and illustrated his talk with some excellent pictures. Mr. Eby also used colored slides in illustrating his talk on "Fruits and Vegetables."

Our new president, Roy M. Breidenbach, urged all members to double their efforts in support of the association, because in trying times such as we are experiencing it is too easy to consider association matters of minor value when, in reality, they can be of great help.

The next meeting of the association was set for March 16, at the Webster Hall hotel, Pittsburgh. This is to be an evening meeting and will start at 7:30 o'clock.

L. E. Wissenbach, Sec'y.

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out of 2½-in. Pots.

$28.00 per 100 $250.00 per 1000

JUNIPERUS neaboriensis.
JUNIPERUS scopulorum Blue Bush.
JUNIPERUS scopulorum Chandler's Silver.
JUNIPERUS scopulorum columnaris.
JUNIPERUS scopulorum Marshall.
JUNIPERUS scopulorum Mission.
JUNIPERUS scopulorum Sutherland.
JUNIPERUS virginiana Chandler's Blue.
JUNIPERUS virginiana Burki.
JUNIPERUS virginiana canaerti.
JUNIPERUS virginiana columnaris.
JUNIPERUS virginiana glauca.
JUNIPERUS virginiana globosa.
JUNIPERUS virginiana ketseleeri.
JUNIPERUS virginiana kosteri.
JUNIPERUS virginiana pyramidiformis hilli.

AND OTHER VARIETIES.

Also, the following

Euonymus Patens, 2½-in. pots, 6 to 8 ins., each, 9c.
Andorra Juniper, 1-yr., in frames, 8 to 12 ins., each, 10c.
Platte River Cedars, 4-in. pots, 15 to 18 ins., each, 30c.

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Fine assortment of the best types of B&B Evergreens.

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Wholesale growers of the best

Ornamental Evergreens, Deciduous Trees, Shrubs and Roses.

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SHENANDOAH NURSERIES

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HYBRID CLEMATIS—Large-flowering

Jackmani, Henryi, Mme. Andre, Ramona, Duchess of Edinburgh, Lawsoniana, Mme. Baron Veillard, Crimson King, Field-grown, No. 1 and medium grades. 4-in. pot plants.

No. 1, $25.00 by the hundred; 30c each in less quantities. Medium grade, 15c each.

D. S. GEORGE NURSERIES, Fairport, N. Y.

Diseases of Trees

Gleanings from the Latest Reports of Scientific Research

By Leo R. Tehon

SEEK BLIGHT-RESISTANT TIMBER-TYPE CHESTNUT.

As a result of the breeding work with chestnuts carried on by Dr. Arthur H. Graves, of the Brooklyn Botanic Garden, since 1930, some indications have been obtained that in the future a tall-growing, blight-resistant tree suitable for reforestation purposes may be available to replace the American chestnut now practically extinct as a forest tree. Most promising in this direction are hybrids of the American chestnut, Castanea dentata, and the Japanese chestnut, C. crenata.

From crosses of these two chestnuts, Dr. Graves now has about 150 first-generation hybrids ranging in age from 1 to 10 years, all of which have the erect habit of growth characteristic of the American parent. In many instances, the hybrids have surpassed the American chestnut in their annual rate of growth. However, besides inheriting the growth characteristics of the American parent, these hybrids have also inherited the susceptibility to blight that is also a characteristic of the American parent, to such an extent at least as to render them unsuitable as reforestation stock.

As is well known to the plant breeder, it is often possible to derive superior types from unsatisfactory first-generation hybrids by the process known as backcrossing—that is, by crossing the hybrid back to the parent possessing a desirable character and by interbreeding the hybrids themselves. In the case of the chestnut, the end sought is the production of a type that exhibits not only the tall, rapid growth of the American chestnut, but also the high degree of disease resistance manifested by the Japanese chestnut. In line with this possibility, Dr. Graves had obtained by the close of 1941 hybrid nuts to the number of 236, of which 135 were from backcrosses to the resistant Japanese parent and fifty from interbreeding the hybrids.

Since three to six years is necessary for the production of new chestnut generations and a still longer time is required for the assay of disease resistance and growth characteristics, it will be some years before it is known whether among these or later crops there occurs a type of chestnut suitable for reforestation purposes. In the meantime, Dr. Graves does not discount the possibility that resistant trees may come from nuts borne by suckers arising from the bases of native trees whose tops have been killed by blight. He is planting all such nuts received by him and suggests that more should be sent. If such nuts are gathered and sent, he suggests they be wrapped in moist cotton or sphagnum, since drying out soon kills the embryo, and that as soon as possible after they are gathered they be mailed to him at the Brooklyn Botanic Garden, 1000 Washington avenue, Brooklyn, N. Y. L. R. T.

HARDY APRICOTS.

Recently there has been wide interest in new hardy apricots. Seedlings developed from seeds secured from Manchuria and neighboring China have proved adaptable to the cold territory of the northern plains area. These seem to carry the blood of both the hardy Manchurian species and the quality dessert apricot. The ordinary wild Manchurian is meaty but usually lacks juiciness and fineness of flavor. As grown at the Dominion experimental station at Morden, Man., fruits tend to split as they ripen. Recognized commercial varieties, such as Stella, Moorpark and Tilton, are tender to winters there.

The Morden station introduced a seedling of the Manchurian cultivated apricot in 1937, under the name Scout. It was hoped that it would act as a pathfinder for other worthy and more excellent selections. It had been introduced for retest under number Morden 600 in 1935. The tree is strong-growing, hardy, vigorous and healthy. It is productive when associated with one or more other kinds of apricots to provide a different strain of pollen. The fruit is amber-yellow, sometimes red blushed on the sunny side, up to one and one-half inches in length, wider than it is deep, and sharp-pointed. The skin is nearly smooth. The flesh is smooth, being free from woodiness. It is only fair as a dessert, but acceptable canned or made into jam. It ripens about the end of July.

Morden 601 is a second-generation seedling of a cross made by Dr. A. F. Yeager, at the North Dakota station, by using commercial variety pollen on the Siberian. The

1887 *1943*

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on orders booked now see our 2-page advertisement in the February 15 issue.

Our Spring Trade List is in the mail. If you did not receive it, write for a copy.

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We are obliged to vacate 142 acres of land, where we are growing a general line of Ornamental Nursery Stock. Also Lining-out and Mail-order Grades at prices far below the usual wholesale price.

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SPECIAL
Flowering Cherries

Amanogawa, 5 to 6 ft.	$0.80
Amanogawa, 6 to 8 ft.	.90
Kofugen, 5 to 6 ft.	.80
Kofugen, 6 to 8 ft.	.90
Siebold, 5 to 6 ft.	.80
Siebold, 6 to 8 ft.	.90
Paul Wohlert, 5 to 6 ft.	.80
Paul Wohlert, 6 to 8 ft.	.90
Mount Fuji, 5 to 6 ft.	.80
Mount Fuji, 6 to 8 ft.	.90

STORRS & HARRISON NURSERIES
Painesville, Ohio

LINING-OUT STOCK

	Per 1000
Lonicera Frag., 18 to 24 ins.	$ 30.00
White Fringe, 18 to 24 ins.	30.00
Juniper Pfitz., 15 to 18 ins., BR.	350.00
Juniper Burkl, 18 to 24 ins., BR.	400.00

FINISHED STOCK

	Per 100
Redbud, 5 to 6 ft.	$35.00
Chinese Elm, 8 to 10 ft.	90.00
White Dogwood, 5 to 6 ft., B&B	50.00
Scotch Pine, 2 to 3 ft., B&B	75.00
White Ash, 8 to 10 ft.	65.00
Water Maple, 8 to 10 ft.	65.00

Also many Shrubs & Evergreens

NICK'S NURSERY, Anchorage, Ky.
15 miles from Louisville

Large stock of—

Juniper Virginiana

3 to 4 ft., 4 to 5 ft., 5 to 6 ft., 6 to 7 ft.

Juniper Scopulorum

Sneed's Silver

3 to 4 ft., 4 to 5 ft., 5 to 6 ft.

Chandler's Silver

3 to 4 ft., 4 to 5 ft., 5 to 6 ft.

Also complete stock of other Junipers and Arbor-vitaes listed in our Fall 1942 list.

	Per 1000
Juniper Grafts	$225.00
Biota Grafts	200.00

Select Chinese Elm

6 to 8 ft.	$200.00
8 to 10 ft.	275.00
1¼ to 1½-in.	350.00

SNEED NURSERY COMPANY
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WISTARIA MULTIJUGA ROSEA
(Pink Long Cluster Wistaria)
Grafted from Blooming Wood

No. 1	50c
Medium	40c
No. 2	30c
L/O (Limited Supply)	20c

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Chase, Alabama

SPECIAL

12,000 Pink and White Dogwood

Cornus florida, 3 to 4 ft., 50c; 4 to 5 ft., 75c; 5 to 6 ft., $1.00; 6 to 7 ft., $1.50.
Cornus florida rubra, 2 to 3 ft., 80c; 3 to 4 ft., $1.00; 4 to 5 ft., $1.50; 5 to 6 ft., $2.00; 6 to 7 ft., $3.00.
Above prices are for B&B.
If wanted NR, 20 per cent less.
Red-leaved Barberry, 18 to 24 ins., 15c.
Green-leaved Barberry, 18 to 24 ins., 10c.
American Redbud, 6 to 7 ft., 75c.

Klein Nursery & Floral Co.
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MAZZARD and MAHALEB CHERRY SEEDLINGS
Clean, healthy, well rooted stock.
Also grafted and seedling Nut Trees.
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Old English BOXWOOD
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All slow-grown dense specimens. Red clay soil. Priced by height and spread. 18x12 ins. to 24x22 ins. in unlimited quantities. Also large specimens up to 5 ft. Write for price list.
BOXWOOD GARDENS
Mrs. R. P. Royer High Point, N. C.

Siberian species has woody flesh. This granddaughter arose among 2,500 that grew from a bushel of apricots donated during a visit to Fargo. The tree was given a place number of T-2-246 when it first fruited in 1940. The tree is upright but spreading and strong. The fruit is deeper than Scout. The color of both skin and flesh is golden-yellow. The flesh is tender, melting and juicier than most of its sister fruits. The flavor is rich and pleasing, being more impressive than Scout to eat out of hand. Canned it received top rating among local apricots. It appears to be a good companion for Scout.

The varieties from the Dakota station on trial at Morden are Ninguta, Manchu, Anda, Sansin, Mandarin, Chow, Sing, Tola, Zun, Lolin and Hulan.

Apricots should be worked on to apricot seedling roots. They do not bond satisfactorily with plum or sand cherry stocks. They must have good drainage, as wet feet often cause root rot and death. Apparently, they require cross-pollination for fruitfulness. Apricot trees surpass apple, pear and plum trees in their resistance to drought.

W. R. Leslie.

MAIL ORDER MEN MEET.

The third biweekly meeting and feed of the National Association of Mail Order Nurserymen was held at the Red Brick Tavern, located at Richards Gardens, Plainwell, Mich., March 12, at 6 p. m.

The sponsors were Elden Burgess, of Burgess Seed & Plant Co., Galesburg, Mich.; Charles Richards, of Richards Gardens, and Earl Ryno, of Wayland Dahlia Gardens, Wayland, Mich. These sponsors have always tried to make this particular meeting, and especially the feed that goes with it, the outstanding event of the spring season and have invited seedsmen and nurserymen, whether members of the association or not, to enjoy this gathering.

JESSE S. FLORY, landscape architect and assistant secretary and treasurer of LaBars' Rhododendron Nursery, Stroudsburg, Pa., is accepting cigars, and not giving them away, because of becoming the proud father of twin girls. This is a duplication of a somewhat similar feat four years ago, when boys constituted the first multiple blessed event. Those connected with the nursery are also wearing smiles, proud of the fact that this is an all-around nursery of considerable productivity.

CHINESE WISTARIAS

Own-root, field-grown, sure flowering. Why worry with grafts and suckers from nonflowering understocks? Ours blossom in our 1-year fields.
No. 1 grade, $15.00; No. 2, $10.00 per 100.
WEIGELA EVA RATHKE, red; well branched, 18 to 24 ins., $15.00; 12 to 18 ins., $10.00 per 100.
WEIGELA ROSEA, pink; well branched, 2 to 3 ft., $15.00; 18 to 24 ins., $10.00 per 100.
Prices per 1000 on request.
ROSES, hardy bush, hardy climbers, HTs and HPs.
EVERGREENS, carloads, truckloads.
Cold resistance is inherent in the variety rather than in the locality where grown.
Ask for catalogue.

VERHALEN NURSERY COMPANY
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Wholesale Only.

TREE NOVELTIES

- Chinese Scholar's Tree
- Idahoan Locust
- Shipmast Locust
- Teas Weeping Mulberry
- Double-flowering Peach
- Weeping Peach
- Rose Acacia
- Flowering Crab

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Progressive Nurserymen
Ottawa, Kansas

JUNIPERUS VIRGINIANA

JUNIPERUS VIRGINIANA. Red Cedar

	Per 100	Per 1000
12 to 18 ins., transplanted.	$ 4.00	$ 30.00
18 to 24 ins., transplanted.	6.00	40.00
24 to 30 ins., transplanted.	8.00	70.00
30 to 36 ins., transplanted.	12.00	100.00

The plants listed above are well developed plants, 2-year, field-grown. Will be puddled and packed in moss.

O. H. PERRY NURSERY CO.
Box 545 McMinnville, Tenn.

HEMLOCK

TSUGA CANADENSIS. Hemlock	Per 10	Per 100
6 to 10 ins., B&B	$2.00	$16.00
10 to 12 ins., B&B	2.50	18.00
6 to 18 ins., bare roots	.75	7.00
10 to 12 ins., bare roots	1.25	9.00

We can furnish the Hemlock with a small ball, 3-year transplanted, nice plants.
Satisfaction guaranteed or your money back.
EVERGREEN GARDEN NURSERY, McMinnville, Tenn.

ROOTED CUTTINGS, Per 1000
Abelia Grandiflora, 1-yr., beds $35.00
Boxwood, Sempervirens, 2-yr., beds 40.00
HARDWOOD CUTTINGS, Per 1000
Abelia, $3.00; Boxwood Sempervirens, $4.00; Gardenia Florida, $4.00; Japonicum and Lucidum Ligustrum, $4.00.
MOUNTVILLE NURSERIES, Mountville, Ga.

Reviews of New Books

SHRUBS FOR SMALL PLACE.

Attempting to aid the owner of small home grounds in the selection of trees and shrubs for planting in his limited area, P. J. Van Melle, in "Shrubs and Trees for the Small Place," just published by Charles Scribner's Sons, at $2.50, remarks the noteworthy points of some 360 shrubs and a considerable number of trees. From a short paragraph to a couple of pages are granted each in the general comments that make up most of this 300-page book, which is without any illustrations. It is confined to deciduous material hardy in the author's locality of Poughkeepsie, N. Y.

Chief value of the book lies in its comments on the characteristics, uses and deficiencies of the many shrubs and trees, from the long experience of this nurseryman and his observations in plantings and arboretums in the northeast section of the country.

The unique feature of the book is the score chart of eighteen pages, in which 363 shrubs are awarded points on floral effect, floral fragrance, normal foliage value, seasonal foliage color, decorative fruit, summer blending value, winter value, relative freedom from insects and diseases, transplantability, endurance of light shade, adaptability to various soils and special uses.

In this score sheet most of the ratings are between 40 and 60 points. Comparisons between shrubs of considerable variation in esteem are expressed, therefore, by but slight difference in total scores. Is that emphatic enough for the uninitiated amateur? But tabulating the scores was no doubt an interesting diversion for the author, as he suggests something of the sort as a pastime for the home planter.

The long list, containing many items the owner of a small place will scarcely have heard about and will find in but few catalogues, therefore, becomes a reference list for more advanced gardeners, who are fond of checking the experiences of others in planning their trials from season to season.

While some newer varieties are mentioned—more in the following descriptive notes than in the score chart—the old stand-bys are nearly all noted present.

The nurserymen's quantity production of old favorites—from which lecturing landscape architects frequently plead for escape—is justified by the high ratings in the score chart. Some of the highest scorers are: Abelia grandiflora, 79; Berberis thunbergi, 81; Cornus florida, 78; Euonymus alatus compactus, 72; Kolkwitzia amabilis, 68; Oxydendrum arboreum, 73; Viburnum tomentosum, 70.

NATIVE ILLINOIS SHRUBS.

The many nurserymen who study the native plants of their territory will welcome and highly value the "Fieldbook of Native Illinois Shrubs" by Dr. Leo R. Tehon, since 1921 head of the section of applied botany and plant pathology of the Illinois Natural History Survey, who incidentally has contributed the department "Diseases of Trees" in the American Nurseryman.

This manual is a companion to the earlier fieldbook on wild flowers. Its 300 pages contain descriptions of 210 species and twenty-seven varieties, representing seventy-seven genera and forty-three families. Analytical keys are provided, and figures of foliage and fruits of many appear in seventy-two pages of line drawings. Six full-color illustrations are included. The work reflects years of work by the Natural History Survey in the collection and recording of flora native to the state.

The descriptive text is readably presented, with recourse to botanical terms only where necessary. Thus the volume combines accurate scientific procedure with readily understood presentation, so that the amateur may receive the greatest value from this helpful and valuable work.

The price is $1.25 per copy. To obtain the book, an order should be mailed to the Illinois Natural History Survey, Urbana, accompanied by a money order made payable to the State Treasurer of Illinois, Springfield, Ill.

AMERICAN ROSE ANNUAL.

The 1943 edition of the American Rose Annual carries the swan song of Dr. J. Horace McFarland as editor. This is the twenty-eighth yearbook of the American Rose Society he has edited, a good enough record for this world-famous rosarian now in his eighty-fourth year. Within recent months the Garden Club of America awarded for the first time the Jane Righter medal to Dr. McFarland for distinguished service and the National Rose Society of England bestowed upon him the Dean Hole memorial medal, an award instituted in 1909 and presented only once before to an American.

In his valedictory he points out the vast change in the American Rose Society since the first annual was issued in 1916. In that year there were but 289 members, of which only fifty-three were amateurs. Today the membership numbers about 3,500, almost all amateurs. The latter contribute virtually all the contents of the twenty-eighth annual, whereas in years gone by both nurserymen and greenhouse cut flower growers were considerably represented in its pages.

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Ariens Tractortiller

It Harrows, Discs, Packs and Levels the Soil in One Operation . . . .

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Made in two sizes—4 ft. and 5 ft. Motor driven or power-take-off from any suitable tractor.

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A complete job of fitting the soil after plowing. It leaves no wheel tracks on the field. The revolving tines thoroughly mix and aerate the soil evenly, leaving it in a uniformly tilled condition throughout. Depth of operation is up to 12 inches under favorable conditions. Send for details now.

ARIENS COMPANY

Box 710 **Brillion, Wisconsin**

COMPLETE ASSORTMENT OF NURSERY STOCK

APPLE—Good variety list.
SHRUBS—Well grown, thrifty.
ALPINE CURRANT — Our specialty.
PHLOX — Field-grown and lining-out.
SHADE TREES—Excellent roots.
EVERGREENS—B&B.
EVERGREENS—To line out.
Our new wholesale list is now ready. Write for quantity prices.

SHERMAN NURSERY CO.
Charles City, Iowa

SHRUBBERY BARGAINS

Below we offer a list of ornamental shrubs which we have in surplus and are offering at very reasonable prices.
This is all first-class stock of our own growing. All 2-yr., twice transplanted, well branched and rooted.

Euonymus Europaeus, 36 to 48 ins.	$0.14
Forsythia Int. Spec., 36 to 48 ins.	.12
Lonicera Zabeli, 36 to 48 ins.	.12
Regel Privet (true stock), 24 to 36 ins.	.10
Snowberry, Racemosus, 18 to 24 ins.	.06
Rose, Hansa, heavy, No. 1½	.14
Rose, Hugonis, heavy, No. 1	.13

Free boxing on orders of $15.00 or more when cash accompanies order.

JUNG SEED CO.
Nursery Dept. Randolph, Wis.

	Per 100
1000 **Green Ash,** 6 to 8 ft.	$35.00
1000 **Green Ash,** 8 to 10 ft.	50.00
1000 **Chinese Elm,** 6 to 8 ft.	35.00
1000 **Chinese Elm,** 8 to 10 ft.	50.00
500 **Lombardy Poplar,** 8 to 10 ft.	22.00
500 **Lombardy Poplar,** 10 to 12 ft.	30.00
1000 **Spiraea Vanhouttei,** 2 to 3 ft.	12.00
1000 **Cornus Stolonifera,** 2 to 3 ft.	15.00
1000 **Weigela Rosea,** 2 to 3 ft.	18.00
500 **Redbud,** 5 to 6 ft.	40.00
1000 **Lonicera Tatarian,** 3 to 4 ft.	18.00
1000 **Lonicera Tatarian,** 4 to 5 ft.	25.00
Apple (Leading Varieties)	
2000 1 to 1½-in. cal.	30.00
1000 **Pear,** 1 1/8 to 1¾-in. cal.	30.00
300 **Blue Damson Plum,** 1 to 1½-in. cal.	35.00

We are in need of Lining-out Shrubs and Evergreens.

EGYPTIAN NURSERY & ORCHARD CO.
Farina, Ill.

LINING-OUT STOCK

Hall's Jap. Honeysuckle, Sugar Maple Seedlings, White Flowering Dogwood, Redbud and Red Cedar Seedlings, American Beech, etc.
Write for wholesale prices on large or small lots.

MORTON BROS., TARLTON NURSERIES
R. 7, McMinnville, Tenn.

ARBORVITAE
Goldspire, sheared, specimen plants, 80c.

ABELIA GRANDIFLORA
3 to 4 ft., bushy plants, 60c

These prices are for B&B plants at nursery or F.O.B. cars our shipping point, La Grange, Ga.

MOUNTVILLE NURSERIES, Mountville, Ga.

REAL PROFITS SELLING BETTER LAWNS

Sell the seed that makes sturdy, enduring, beautiful lawns. Use our service to secure special mixtures for your locality.

F. H. WOODRUFF & Sons, Inc.
Toledo, O. Milford, Conn.

From the beginning of the society, under Robert Craig in 1894, the president was always a commercial rose grower until the first publication of the annual in 1916 began the swing toward the amateur element. The late F. L. Atkins was the last commercial man to head the society, in 1926-27. Throughout the years to date, nevertheless, commercial rose growers have supported the organization and set high value on the annual.

The current edition of over 250 pages contains over two score short articles on a diversity of topics—wild roses, old roses, propagation and pruning, adaptability to various sections of the country, use in foreign lands and time-honored black spot. More condensed than ever, the experiences of numerous members with different varieties are summarized in "Proof of the Pudding."

Fifty-eight new roses are described. It is stated that the records of twenty-five years show introductions of 3,592 roses, an annual average of 144!

One who has watched the successive American Rose Annuals come from the press can only add acknowledgment of the generous spirit of the indefatigable editor who has filled a bookshelf with the lore of the rose in these twenty-eight volumes.

BOOKS ABOUT THE FARM.

When food production is taking more attention of nurserymen, books on farm operations are of particular interest. So some of the recent publications of the Interstate Printers & Publishers, Danville, Ill., are appropriate for review. "Getting Acquainted with Agriculture," an introductory textbook for persons interested in rural life, selling at $2, deals with the various grain crops and farm animals, their production and marketing, as well as the problems involved. It is a general summary of the various phases of farm life and covers much general material in its 736 pages.

"Farm Mechanics," at $2.50, covers woodwork, painting, ropework, belt work, concrete, metalwork, forge work, motors and machinery, with many illustrations and references.

"Repairing Farm Machinery," at $1.80, is a paper-bound 180-page book of diagrams and specific directions for repairing such equipment as mowers, binders, plows, harrows, cultivators, etc.

"380 Things to Make for Farm and Home," at $2.50, is a clothbound book of 325 pages containing plans for many pieces of equipment in the home-farm woodworking or carpen-

JEWELL
Ornamental and Tree Seedlings

	Per 100	Per 1000
Birch, American White.		
12 to 18 ins.	$1.80	$15.00
18 to 24 ins.	2.50	20.00
2 to 3 ft.	3.50	30.00
3 to 4 ft.	5.00	.....
Birch, Paper or Canoe.		
6 to 12 ins.	2.00	18.00
12 to 18 ins.	2.50	22.00
18 to 24 ins.	3.50	30.00
2 to 3 ft.	5.00	40.00
Box Elder.		
2 to 3 ft.	1.50	12.00
3 to 4 ft.	2.00	16.00
4 to 5 ft.	2.50	.....
Buckthorn, Cathartica.		
12 to 18 ins.	1.20	10.00
18 to 24 ins.	1.80	15.00
2 to 3 ft.	2.20	18.00
Buckthorn, Frangula.		
12 to 18 ins.	2.00	18.00
18 to 24 ins.	2.50	22.00
2 to 3 ft.	3.50	30.00
Caragana, Arborescens.		
12 to 18 ins.	.80	6.00
18 to 24 ins.	1.20	9.00
2 to 3 ft.	1.50	12.00
3 to 4 ft.	2.00	16.00
Elm, Chinese.		
2 to 3 ft.	1.20	10.00
3 to 4 ft.	1.80	15.00
Horsechestnut (Ohio Buckeye).		
6 to 12 ins.	1.50	12.00
12 to 18 ins.	2.00	16.00
18 to 24 ins.	3.00	25.00
2 to 3 ft.	6.00	.....
Locust, Honey.		
18 to 24 ins.	1.50	12.00
2 to 3 ft.	2.50	20.00
3 to 4 ft.	3.50	.....
Maple, Ginnala.		
2 to 3 ft.	2.50	20.00
3 to 4 ft.	3.50	30.00
4 to 5 ft.	5.00	.....
4 to 5 ft., branched	9.00	.....
Mountain Ash, European.		
6 to 12 ins.	1.80	15.00
12 to 18 ins.	2.50	20.00
Mulberry, Russian.		
18 to 24 ins.	1.50	12.00
2 to 3 ft.	1.80	15.00
3 to 4 ft.	2.50	20.00
4 to 5 ft.	4.00	.....
Thorn, Crataegus (Mollis and Punctata).		
12 to 18 ins.	2.50	20.00
18 to 24 ins.	3.00	25.00
2 to 3 ft.	5.00	.....
3 to 4 ft.	7.50	.....

All the above listed liners are in storage in quantity and can be shipped on short notice.

JEWELL NURSERIES, INC.
Lake City, Minnesota

JUNIPERUS SCOPULORUM

Seedlings and Transplants

	100	1000	5000
4 to 6 ins.	$4.00	$30.00	$125.00
6 to 10 ins.	6.00	50.00	175.00
6 to 8 ins., transp.	7.50	60.00	.....

ABIES CONCOLOR, Seedlings
2 to 4 ins. $2.00 $15.00 .....

DOUGLAS FIR, Seedlings
2 to 4 ins. $2.00 $15.00 .....

Cash—Packing Free

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EVERGREENS • SHRUBS • TREES
Junipers: Pfitzer, Savin, Anderra, Admirabilis Virginiana, Pathfinder and Scopulorum.
In Potted Liners, Mail order sizes, Light Landscape sizes or Heavy B&B sizes.
Lilacs, Privet, Shade Trees.
Quality Stock — Low Prices
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try shop. Metalwork, concrete, farm plumbing, electricity and fencing are discussed in separate chapters. Numerous pictures aid the text, and plans for many pieces of construction are presented.

VEGETABLE MANUAL.

After six short chapters discussing garden plans, soils, fertilizers, tools, growing seedlings and the preparation of soil, "A Manual of Home Vegetable Gardening," by Francis C. Coulter, considers each of a long alphabetical list of vegetables, well known and uncommon. Each is dealt with in detail.

An appendix embraces a table of spring and fall frost dates for all the states in the Union, garden measurements and a list of the state agricultural experiment stations.

The book contains 279 pages of text and is published by the Garden City Publishing Co. as a Blue Ribbon book, at $1; a previous edition was sold at a higher price.

GROW FOOD FOR FAMILY.

Samuel R. Ogden's extensive study of noncommercial gardening is "How to Grow Food for Your Family." In his first chapter, Mr. Ogden tells of the advantages of a small vegetable garden tended by the members of a family for their own use.

The content of this handbook was prepared in the manner of material in a textbook, with diagrams and tables.

An eastern states' planting chart, a soil test report, a table on the amounts of mineral fertilizer to be used, a table on the vegetables affected and unaffected by frost, several garden plan tables, a control calendar for vegetable pests and a food nutrients chart form the appendixes. The book is clothbound in green and published by A. S. Barnes & Co., at $2.

VICTORY GARDENING.

Patriotically bound in blue cloth with red and white lettering and slipped into a red, white and blue wrapper, "Gardens for Victory," by Jean-Marie Putnam and Lloyd C. Cosper, treats, at some length, of the vitamin and mineral contents of various vegetables. Then, under "Eat Your Beauty and Have It Too," a chapter is concerned with food plants in flower beds and with twining food-producing vines over doorways.

The selection and pretreatment of seeds, underglass growing, soilless culture, culinary herbs, salad gardens and children's gardens are all discussed before the culture of edible plants is handled. For this, all plants are divided into nine groups, each class dealt with separately, but not in much detail. "Combating Disease and Pests," "Malnutrition Symptoms of Growing Plants" and "Keeping, Storing and Cooking" are the concluding chapters.

For the practiced grower there is little new as regards plant production in "Gardens for Victory," published by Harcourt, Brace & Co., at $2.50, though he might find interest in the discussions of the vitamin and mineral requirements in food for humans and in the frequent references all through the book to the historical usage of particular foods.

NEW YORK STRAWBERRIES.

The four "C's" in strawberries, Cato, Catskill, Clermont and Culver, sister seedlings from a cross between Howard and Marshall, are highly recommended by the fruit specialists at the New York state experiment station, Geneva, the first variety for home use and the others for both market and home use. All four varieties are described as exceptionally vigorous and are said to be excellent plant makers. The fruits are large, glossy, attractive and good in quality, and all four varieties ripen in midseason.

Each of the varieties has some special adaptation, being better for one purpose than for another. Culver, for example, has proved especially popular with the canning industry for the making of strawberry preserves, largely because of its dark red color and sprightly flavor. Culver is also highly rated as a berry for home use. Cato, on the other hand, bruises too easily to make a satisfactory market berry, but is highly valued on account of its quality.

Clermont is excellent both for home use and for market and is said to be one of the outstanding strawberries grown on the station grounds. The fruits are large and hold up well throughout the season and have good handling qualities. Catskill's true value was first noted in tests made away from Geneva. It is proving exceptionally popular in the northeastern states, where it is a heavy yielder and a good market berry.

The station also recently introduced Dresden, a cross between Beacon and Howard. It is noteworthy for its productiveness, large size and attractive appearance. Dresden is recommended for trial as a market berry. Planting stocks of all of the station's new strawberries are obtainable from the New York State Fruit Testing Association, at Geneva, which cooperates with the experiment station in the propagation and

SEEDS

	¼ lb.	lb.
Apple, for stock	$0.30	$0.90
Plum, Americana	.30	1.00
Plum, Myrobolan	.30	1.00
Arborvitae (occidentalis)	.55	2.00
Arborvitae (orientalis)	.80	2.75
Arborvitae (orientalis conspicua)	1.00	3.50
Fir (balsamea)	.80	2.75
Fir, China (Cunninghamia)	.85	3.00
Fir, Douglas, Green	2.20	8.00
Ginkgo (biloba)	.25	.85
Hemlock (canadensis), northern	1.50	5.75
Hemlock (canadensis), southern	1.20	4.50
Hemlock (caroliniana)	1.65	6.00
Juniper (virginiana), northern, clean	.80	3.00
Pine (banksiana)	1.00	3.50
Pine, Red (resinosa)	1.65	6.00
Pine, Pitch (rigida)	.60	2.00
Pine, White (strobus)	.40	1.50
Spruce, Black Hills	1.85	6.50
Spruce, Colorado Blue, from the bluest of trees	1.50	5.00
Sequoia (gigantea)	2.25	7.50
Acer platanoides	....	.50
Betula lutea	.45	1.50
Betula papyrifera	.60	2.00
Clematis macropetala	½ oz., $0.45	....
Cornus florida, White, northern, clean	.35	1.15
Cornus florida, White, southern, clean	.35	1.15
Cornus florida, Red, clean	.45	1.50
Crataegus crusgalli, clean	.60	2.00

	¼ lb.	lb.
Crataegus monogyna (single seed oxyacantha), clean	$0.55	$1.75
Crataegus prunifolia, clean	.70	2.65
Crataegus punctata, clean	.45	1.50
Cytisus scoparius	.70	2.50
Ilex opaca, clean	.65	2.00
Koelreuteria paniculata	.60	2.00
Prunus tomentosa	1.45	4.50
Robinia pseudoacacia	.25	.75
Rosa multiflora, thornless, clean	.60	2.00
Rosa rugosa, Red, clean	.75	2.50
Rosa rugosa, White, clean	.90	3.00
Sorbus americana	.45	1.50
Syringa josikaea	1.25	4.50
Syringa vulgaris	.50	1.75
Syringa villosa, clean	1.65	6.00
Viburnum americanum	.60	2.00
Viburnum dentatum	.30	.90
Viburnum lantana	.40	1.50

	¼ oz.	oz.
Azalea kaempferi	$1.50	$5.00
Azalea kaempferi, hybrids	½ oz., $1.25	....
Azalea ledifolia	½ oz., 1.00	....
Azalea mollis, from choice plants	.70	2.50
Azalea poukhanensis	2.00	6.00
Azalea rosea	1.50	4.75
Azalea schlippenbachi	.95	3.50
Azalea vaseyi	.55	1.75
Azalea viscosa	.80	2.75
Rhododendron carolinianum	.40	1.20
Rhododendron catawbiense	.40	1.20
Rhododendron maximum	.40	1.20
Rhododendron ponticum	.75	2.50

Aquilegia, Crimson Star X longissima hybrid—This sturdy new strain originated by us will make many friends. In contrast to the weak constitution of Crimson Star, plants grow vigorously to 3½ feet high with many flower stalks. Colors are pink and rose shades with white corolla and require fixing by further selection. The trade is invited to share in the development of this fine new race. Generous packages at $1.00 each.

Catalogue sent upon request.

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HOBBS

APPLE, 1 and 2-yr., leading varieties.
ELM—MOUNTAIN ASH—BIRCH, Cut-leaf Weeping—WHITE DOGWOOD—GINKGO—NORWAY and SOFT MAPLE—PIN, RED, BURR and WHITE OAK—LOMBARDY POPLAR—REDBUD—SWEET GUM—CRATAEGUS—THURLOW WILLOW.
BARBERRY, Green and Red.
BEAUTY BUSH.
PRIVET, Amur and Ibota.
EVERGREENS, up to 6 feet.

C. M. Hobbs & Sons, Inc.
Bridgeport Indiana
Oldest and largest Nursery in Indiana
Established 1875.

Send for New Seed List.
A. B. C.
"Supreme" Quality
SEEDS — PLANTS — BULBS
and
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AMERICAN BULB CO.
1335 W. Randolph St., CHICAGO
31 W. 27th St., NEW YORK

MYROBALAN SEED
LOVELL PEACH PITS
Nation's Leading Source
Write today for quotations.

California
NURSERY COMPANY
Niles, California

North Dakota and Montana Seeds
Northern-grown Tree, Shrub and Wild Flower seeds. Wholesale crude botanicals.
E. C. MORAN Stanford, Mont.

APPLE SEEDS
We accumulate several thousand pounds of apple seeds each fall season. Interested in contracts for all or part of our production.
Valley Evaporating Co.
Yakima, Washington

PEACH PITS
Our Pits Compare Favorably With the Best
HOGANSVILLE NURSERIES
HOGANSVILLE, GEORGIA

distribution of its new fruits. Some of the new varieties are already offered by nurserymen.

CATALOGUES RECEIVED.

Sherman Nursery Co., Charles City, Ia.—Wholesale trade list of general nursery stock, roses, peonies and perennials, featuring specimen evergreens and evergreen seedlings, 36 pages and cover, 6x8¾ inches. Separate retail list, illustrated in color, 8 pages folded to mailing piece size of 4x9½ inches.

I. E. Ilgenfritz' Sons Co., Monroe, Mich.—Wholesale price list of ornamental shrubs, evergreens, shade and fruit trees, roses and perennials, 48 pages and cover, 5x8 inches.

Evergreen Nursery Co., Sturgeon Bay, Wis.—Wholesale price list of lining-out stock, 8-page folder, 3½x8½ inches.

Elmhurst Nurseries, Elmhurst, Ill.—Wholesale price list of lining-out stock, fruit and shade trees and shrubs, 3 mimeographed sheets, 8½x11 inches.

Nut Tree Nurseries, Downington, Pa.—Spring price list of nut trees and plants for wild life feeding, 8 pages, 4x9 inches.

Las Positas Nursery, Santa Barbara, Cal.—Tenth annual bulb catalogue for dealers, well illustrated, 20 pages, 4x9 inches.

William Borsch & Son, Inc., Maplewood, Ore.—Retail catalogue of hardy native and imported alpines and perennials, 64 pages and cover, 6x9 inches.

Snyder Bros., Inc., Center Point, Ia.—Retail spring price list of evergreens, deciduous trees, nut and fruit trees, small fruits and hardy perennials, 48 pages and cover, 5½x8½ inches.

Hebden H. Corsan, Hillsdale, Mich., representative of Echo Valley Nut Plantation & Nurseries, Islington, Ont., Canada.—Fifteenth edition of nut tree catalogue, folder of 4 pages, 8½x11 inches.

Andrews Nursery Co., Faribault, Minn.—Retail catalogue of fruit trees, small fruits, evergreens, vines and shrubs, profusely illustrated, partly in color, 36 pages, 7x10 inches.

Pontiac Nursery Co., Romeo, Mich.—Retail list of fruit trees, small fruits, trees, shrubs, evergreens and perennials, many illustrations in color, 16 pages, 7¾x10½ inches, folded to mailing size of 5¼x7¾ inches.

Harrison Nursery Co., York, Neb.—Retail catalogue of general nursery stock, peonies and perennials, well illustrated in black and white, 20 pages and cover, 8x11 inches. Separate 4-page price list.

Kingsville Nurseries, Inc., Kingsville, Md.—Supplement to retail list of general nursery stock and rare plants, 4 pages, 9x11 inches.

Willadean Nurseries, Inc., Sparta, Ky.—Wholesale trade list of evergreens, trees and shrubs, 8 pages, 4x8½ inches.

Storrs & Harrison Nurseries, Painesville, O.—Wholesale price list of general nursery stock and greenhouse material, 60 pages and cover, 4½x7½ inches.

Storrs & Harrison Nurseries, Painesville, O.—Retail catalogue of seeds, trees, shrubs, vines and perennials, well illustrated, partly in color, 72 pages and cover, 6¾x10 inches.

Walker Nurseries, Memphis, Tenn.—Retail catalogue of general nursery stock, 40 pages, 4x9 inches.

Conard-Pyle Co., West Grove, Pa.—Retail catalogue of roses, illustrated in color, 32 pages, 6½x9¾ inches.

Red Raspberry Plants
New Red Rhubarb
MacDonald—Canada Red

Evergreen Lining-out Stock

Mugho Pine—Dwarf type from Riesengebirge Mountains. This is the last planting of Genuine Dwarf Mugho until 4 years after the war is over in Europe. Plant now for postwar market.

Colo. Blue Spruce transplants, grown from seed picked from bluest trees.

Dwarf Mugho Pine, Transplants	100	1000
2 to 4 ins.	$ 7.00	$ 60.00
4 to 6 ins.	9.00	80.00
6 to 8 ins.	11.00	100.00
Colo. Blue Spruce, Transplants		
6 to 9 ins.	7.00	60.00
9 to 12 ins.	10.00	90.00
12 to 15 ins.	12.50	110.00

ANDREWS NURSERY
Faribault, Minn.

CHOICE STOCK
Still available in the following:
New Canada Red Rhubarb.
Hansen Bush Cherries, all grades.
Grafted selections of Nanking Cherry.
Cutleaf White Birch, 6 to 8 ft., up to 2-in.
May Day Tree, all sizes.
SUMMIT NURSERIES
Stillwater, Minn.

NORTHERN-GROWN NURSERY STOCK
Evergreen Liners — Specimen Evergreens, B&B — Hardy Fruit Trees — Hardy Apple Seedlings — Ornamental Shrubs—Lining-out Shrubs, Trees and Vines. Write for price list.
J. V. BAILEY NURSERIES
Daytons Bluff Sta. St. Paul, Minn.

FRUIT TREES
Barberry — Shrubs
Lombardy & Carolina Poplars
Write for late circular
MALONEY BROS. NURSERY CO., INC.
Dansville, N. Y.

WRITE US FOR SPECIAL PRICES ON
Apples—Cherries, Sweet and Sour
Peaches—Plum—Pear—Quince
WE CAN SELL AT A PRICE THAT WILL BRING REAL PROFITS TO YOU.
KELLY BROS. NURSERIES
DANSVILLE, N. Y. Since 1860

SMALL FRUIT PLANTS
Evergreens—Shrubs
Lining-out Stock
Send for Complete Trade List
W. N. SCARFF'S SONS
New Carlisle, O.

FRUIT TREES—GRAPES—
PECANS—FIGS
Good line of most Fruits and Shrubs
We invite your inquiries.
COMMERCIAL NURSERY CO.
Decherd, Tenn.

Germination of Seeds

FIELD GERMINATION OF VARIOUS HARDWOODS.

Red oak, Quercus rubra, gave satisfactory field germination with either fall-sown seeds or with spring-sown seeds which had been stratified in peat moss or sand at approximately 4 degrees centigrade, stated C. E. Heit, now assistant in research in the division of seed investigations at the New York agricultural experiment station at Geneva, in notes published by the state conservation department. Highest tree per cent was usually obtained with spring-sown seeds that had been properly afterripened. Special tests to determine the optimum length of time for complete afterripening and sprouting of the viable seed showed it varied somewhat with the individual lots, but usually two and one-half to three months was sufficient. Two other advantages of planting afterripened and sprouted seeds might be cited. One is that all poor, unsprouted seeds can be culled at the time of planting. This allows the planting of only good, strong healthy acorns, which will give nearly a 100 per cent stand. This method is applicable where one desires a definite stand of seedlings in the nursery or in a plantation by direct seeding. The other advantage of this procedure is that a more fibrous root system may be secured on nursery-grown stock by simply pinching the radicle tip off one-half its length at the time of planting. By allowing the sprouts to protrude approximately one inch in stratification before the pinch-back they are at the ideal length for the development of this fibrous root system. The sowing of dry seeds in the spring yielded poor and slow germination and the trees produced were often inferior in size.

European oak, Quercus robur, leans to the white oak group in its germinative characteristics. Excellent results may be expected from fall-sown seeds that are mulched heavily with leaves or other material to prevent freezing of the seeds in the ground. No germination was secured with unmulched seeds. Neither stratification practices nor seeds held dry for spring sowing were successful.

Shagbark hickory, Carya ovata, is one species of which it was difficult to secure prompt and uniform germination of all viable seeds the first year. Six to seven months' stratification in peat moss at 4 degrees centigrade gave excellent results, all viable seeds germinating the first year. Stratification at room temperature for two months followed by five months at 4 degrees centigrade also gave good results. All the seeds thus treated were sown in the spring. Fall-sown dry seeds, when heavily mulched, gave nearly as good results in some cases, but unmulched beds often gave poor germination. Alternate freezing and thawing of the seeds during stratification was not beneficial. Seeds sown dry in the spring were a failure from the production standpoint.

Bitternut hickory, Carya cordiformis, yielded poor results the first year. It was discovered that it could not be handled in the same manner as other nut trees with success. It did not hold over well in the dry state, it germinated in stratification and it apparently was injured when fall-sown. Consequently a special series was set up the next year, and the following tree percentages were obtained at the end of the first year with the following treatments: Fall-sown, mulched heavily with leaves to prevent freezing, 72; fall-sown, no mulch, 18. Spring-sown, seeds stratified, five months at 4 degrees centigrade, 25; spring-sown, seeds stratified, warm and cold method, 34; spring-sown, dry seeds, 20.

Black walnut, Juglans nigra, and butternut, Juglans cinerea, reacted much alike. Fall-sown seeds usually gave fair to good germination the following spring. Early fall plantings would be preferable to November plantings. Best germination was secured with spring-sown seeds which had been stratified approximately six to seven months in peat moss at 4 degrees centigrade. The first two months of this stratification period might well be at warm temperature. Dry stored seeds planted in the spring always failed to germinate the first year.

Catalpa speciosa gave the best germination by dry stored seeds planted in the spring. Fall-sown seeds and stratified seeds gave lower germination in all cases tried. Seeds stored dry in a bag at room temperature for one year germinated well the second spring.

European mountain ash, Sorbus aucuparia, was the subject of a test, from which it appeared that macerating the seeds soon after collection and sowing the seeds in October gave the optimum germination at a low cost of handling.

2-yr. ASPARAGUS Roots (Paradise)
$18.00 per 1000

GIANT CELERY — RHUBARB ROOTS
$125.00 per 1000

Terms cash F. O. B. Burbank

BURBANK GARDEN SUPPLY
2520 Burbank Blvd., Burbank, Cal.

Headquarters for . . .
Fruit and Shade trees with vigorous roots and sturdy stems.
Flowering trees, Weeping trees.
Shrubs, Roses, Small fruits.
Catalogue on request

RICH & SONS NURSERY
Route 4 Hillsboro, Oregon

LINING-OUT EVERGREENS
Rooted Cuttings—Once Transplanted. Per 100
Baker Pyramidal Arborvitae, 4 to 6 ins. . . $5.00
Pyramidalis Arborvitae, 5 to 8 ins. 6.00
Irish Juniper, 5 to 8 ins. 8.00
Savin Spreading Juniper, 4 to 6 ins. 6.00
Pfitzer Spreading Juniper, 4 to 6 ins. 6.00
Alumi Blue Cypress, 5 to 8 ins. 8.00
WHITE'S NURSERY
716 S. 9th St., Walla Walla, Wash.

A. McGILL & SON
FAIRVIEW, OREGON
Wholesale Only
GOOD WESTERN-GROWN NURSERY STOCK
Fruit Tree Seedlings
Flowering Ornamental Trees
Shade Trees
Roses
Grown right and packed right.
Combination carloads to Eastern distributing points will save you on freight.

MAHONIA AQUIFOLIUM
(Oregon-Washington Hollygrape)
Glossy broad-leaved evergreen foliage, large panicles of yellow flowers followed by large clusters of blue berries. Hardy anywhere in the United States.
Seedlings Per 1000
1-yr., 3 to 9 ins., row run. $20.00
2-yr., 9 to 15 ins., row run. 30.00
ALSO BUSHY SPECIMEN PLANTS. PRICES QUOTED ON REQUEST.
We specialize in growing Mahonia. Shipments made to any point in the United States with no packing charge, if check sent with order.
MOUNT VERNON NURSERY
Mount Vernon, Wash.

California Field-grown
ROSEBUSHES
Dependable
Howard Rose Co.
HEMET, CALIFORNIA
HOWARD Field ROSES Desert Climate Grown HEMET, CAL.

REVISE QUARANTINE.

In a revision of the Illinois Japanese beetle quarantine, Howard Leonard, state director of agriculture, issued new regulations, effective March 1, which are applicable to specified infested areas in the Chicago region, including four sections on the north side and six sections on the south side of the city itself, and areas in Evanston and Cicero, in Cook county, and in Highland Park, in Lake county. The regulations were issued to provide for the suppression or eradication of the Japanese beetle infestation in these areas and to prevent its spread to uninfested parts of Illinois.

The regulations forbid the movement in any manner of nursery, ornamental or greenhouse stock or other plants, plant roots or sand, soil, earth, peat, compost or manure from the infested areas to any other part of the state without a special permit issued by the state department of agriculture. Such a special permit will be issued only when the articles to be transported have been freed from soil or other material which could transport the beetle, or when the soil or other material has been sterilized or otherwise treated for the elimination of the infestation.

The superintendent of the division of plant industry and his deputies are authorized by the regulations to apply treatments to plants or soil in the infested areas and to set up beetle traps inside or outside the infested areas whenever the superintendent considers such action necessary for the suppression of the Japanese beetle and the determination of its distribution.

SHERMAN'S RETAIL LIST.

Formerly depending entirely upon agents for retail sales, the Sherman Nursery Co., Charles City, Ia., this year is sending out a retail price list through the mail, because of the scarcity of men. Fifty-eight years in business have made the firm well known in its territory, and the customers who have ordered through agents in other years form the nucleus of the mailing list.

The retail price list is in the form of an eight-page folder, 9½x12½ inches, which a double fold converts into a convenient mailing piece. Full color appears in the illustrations on four pages of shrubs, roses, perennials, vines and hedge plants. In one color are two pages devoted to fruits, one page to evergreens and one to shade trees.

PORTLAND WHOLESALE NURSERY CO.
306 S. E. 12th AVENUE Avery H. Steinmetz PORTLAND, OREGON

OREGON-GROWN
Birch, Cutleaf and European White
Cherry, Weeping and Upright
Elm, Chinese Goldenchain, Vossi
Hawthorn, Paul's Scarlet
Maple, Norway and Schwedler
Roses, Bush and Tree
Suggest that you inquire by Air Mail or Night Letter.
Orders must be placed early.

Quality Stock
CONIFERS AND BROAD-LEAVED EVERGREENS
SHADE AND FLOWERING TREES
FRUIT TREE SEEDLINGS
FRUIT TREES
DECIDUOUS SHRUBS
VINES AND BULBS
PORTLAND ROSES

Write for our Catalog

A Complete Line of
OREGON-GROWN NURSERY STOCK
Norway Maple — Schwedler Maple
Birch — Hawthorn
Flowering Crabs
Flowering Plums
Flowering Cherries
Mountain Ash
DOTY & DOERNER, INC.
6691 S. W. Capitol Highway
PORTLAND, OREGON

MILTON NURSERY CO.
A. Miller & Sons, Incorporators
MILTON-*Since 1878*-OREGON
OUR SPECIALTIES
Birches—Flowering Cherries, Crabs and Plums—Chinese Elm—Hawthorns—Lilacs—Lindens—Flowering and Globe Locusts—Columnar, Globe, Norway and Schwedler Maples—Mountain Ash—Oregon Grape—Oriental Plane—Willows.
FRUIT TREE SEEDLINGS
Send us your Want List for Quotations.
Combination Carloads to Eastern distributing points at minimum freight cost.

LINING-OUT STOCK
Our 1943 List of Lining-Out and Planting Sizes of Broad-Leaved and Conifer Evergreens is now ready—
A CARD WILL PUT YOURS IN THE MAIL
"Our Business Is Growing"
RICHMOND NURSERIES
Richmond Beach, Wash.

OREGON'S BEST SOURCE OF GOOD ROSES
is
PETERSON & DERING, INC.
Wholesale Rose Growers
Scappoose, Oregon
1943 List Now Ready.

PACIFIC COAST NURSERY
2244 N. Skidmore Ct.
Portland, Oregon
FRUIT TREE SEEDLINGS in all varieties and grades, also Norway and Schwedler Maples, European Birch, Chinese Elm, and Cut-leaved White Birch, 4 to 5 and 8 to 10 ft.
John Holmason, Prop.

LEADING GROWERS of
CUTLEAF WEEPING BIRCH,
Schwedleri and Norway Maple,
Fine 2 and 3-year stock.
Also Hawthorn, Crab, Flowering Cherry and Pink-flowering Locust.
Ask for Price List.
MOTZ BROS. NURSERIES
P. O. BOX 42. Orenco, Ore.

OREGON PRIMROSES
Mixed Colors. Polyanthus type.
Field-grown.
Plants, $2.25 per doz., postpaid
Seeds, $1.00 for 200
PRIMROSE ACRES
R. 16, Box 446, Milwaukie, Ore.

APPLE SEEDLINGS.
CHINESE ELM SEEDLINGS, 2-yr.
Washington Nurseries
Toppenish, Wash.

CLASSIFIED ADS

Five lines, $1.00,

each additional line, 20 cents, per insertion.

Let these little liners move your stock easily and cheaply.

Peonies: Tree and Herbaceous, best varieties. Oberlin Peony Gardens, Sinking Spring, Pa.

HYDRANGEA P. G.
2 to 3 ft., heavy, $2.75 per 10; $25.00 per 100.
WAYNESBORO NURSERIES, Waynesboro, Va.

For QUICK SALE 10,000 Multiflora Seedlings. 2 to 6 mm. not graded. $7.50 per 1000. "B" cert.
BOULEVARD NURSERIES, Newport, R. I.

THIN-SHELL Black Walnuts, rapid growers, beautiful shades; bear second year. Nuts large, easily cracked. Wholesale, retail catalogue free.
CORSICANA NURSERY, Corsicana, Texas.

ALTHAEA, 2-yr., Heavily Branched. 3 to 4 ft., Assorted colors,
$2.00 per 10; $17.50 per 100.
WAYNESBORO NURSERIES, Waynesboro, Va.

SPECIMEN EVERGREENS, B&B or roots wrapped in moss, and a good assortment of other stock at money-saving prices. Write for List.
PEQUOT NURSERY, Pequot Lakes, Minn.

ASPARAGUS ROOTS
Washington strain. Plants grown from selected seed, 2-yr.-old roots, $7.00 per 1000.
SIROIS NURSERY, St. Anne, Ill.

APPLE, 2-yr. In large assortment of varieties at prewar prices. Send us your Want List for quotations.
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Early-bearing bred-up budded and grafted Papershell Pecan trees, Peaches, Pears, Figs, Grapes, Plums, Apples, Strawberries, Youngberries, Boysenberries. New crop Pecan nuts. Catalogue free. Bass Pecan Co., Lumberton, Miss.

JUNIPERS, 2½-inch pots.
Pfitzer, Irish, Andorra, Savin, 6 to 10 ins.
Write for prices, per 100 or per 1000.
RAU FLORAL & NURSERY CO.,
R. F. D. 3, St. Joseph, Mo.

PINK DOGWOOD—2 to 3 ft., $8.50 per 10; $75.00 per 100; 3 to 4 ft., $13.50 per 10; $120.00 per 100; 4 to 5 ft., $20.00 per 10; $185.00 per 100. If wanted B&B, add 25 per cent.
WAYNESBORO NURSERIES, Waynesboro, Va.

SEEDS
Canadian Hemlock Tree Seeds, $4.50 per lb.; White Pine, $1.50; Choke Cherries, d. b., $1.00; Ilex Verticillata, d. b., $1.00. Prepaid.
N. S. HAYDEN, Gorham, Me.

SURPLUS EVERGREENS
American Arborvitae, 7 to 8 ft.
These are compact, beautiful trees.
Come and see them; they are priced right.
SCHULT NURSERY
West End of Jackson St., Belvidere, Ill.

CUTTINGS AND GRAFTS
Acer, Azalea, Cypress, Cornus, Gordonia, Ilex, Juniperus, Leucothoe, Magnolia, Malus, Pieris, Taxus, Thuja; Viburnum Carlesi, Burkwoodi; Wistaria, in many varieties and sizes. Ask for list just out.
WESTBURY ROSE CO., INC., Westbury, N. Y.

GOLD COIN VALUES!
Azalea Mollis and Altaclarense.
9 to 12 ins., liberal grade, well budded and full bodied, $6.50 per 10; $60.00 per 100; B&B, crating free. Not balled, 10 per cent discount. Cash with order, please. Ask for quotations on larger sizes and 3 to 4 and 4 to 5-ft. specimens.
RICHARD P. RESSEL, Mulino, Ore.

BOXWOOD, Sempervirens	Per 100	Per 1000
2-yr., 4 to 6 ins., from beds	$ 6.00	$ 50.00
4-yr., 6 to 8 ins., transpl.	10.00	90.00
5-yr., 8 to 10 ins., transpl.	18.00	150.00
6-yr., 10 to 12 ins., transpl.	25.00	225.00
15 to 18 ins., Specimens, B&B	75.00	.....
30 to 36 ins., Specimens, B&B	325.00	.....
Suffruticosa, 2-yr., 3 to 4 ins.	6.00	50.00
Suffruticosa, 5-yr., 4 to 6 ins., T.	10.00	90.00

Ask for quotations on larger sizes.
WAYNESBORO NURSERIES, Waynesboro, Va.

EVERGREEN SEEDLINGS

	Per 100	Per 1000
Larch, 2 S, 12 to 18 ins.	$2.00	$12.00
Larch, 3 S, 18 to 30 ins.	3.00	18.00
American Arborvitae, 2 S, 4 to 6 ins.	2.50	15.00
Pyramidal Arborvitae, 2 S, 3 to 5 ins., from seed	4.00	26.00
Banks Pine, 2 S, 6 to 9 ins.	1.50	10.00

HILLSIDE NURSERIES, Yoe, Pa.

WALNUTS—Black and Oriental. Transplanted.
2 to 3 ft. ..... $2.25 per 10, $20.00 per 100
3 to 4 ft. ..... 3.00 per 10, 25.00 per 100
4 to 6 ft. ..... 4.00 per 10, 35.00 per 100
WAYNESBORO NURSERIES, Waynesboro, Va.

SCHWEDLER MAPLES, Pfitzer Junipers and other evergreens in lining-out and specimen sizes; hardy Chrysanthemums, hybrid daylilies and many other items in our new Spring List. Write for your copy today.
RICHARDS' GARDENS, Box 363, Fort Collins, Colo.

EVERGREEN 2-YR. SEEDLINGS, per 250. Cash. Blue Spruce, $2.00; Douglas Fir, $2.00; Scotch Pine, $2.50; Norway Pine, $1.75; 10 per cent less on 2,500 of one kind. Sent postpaid, 10 per cent extra.
BRADEN NURSERY, S. Windham, Maine.

MAGNOLIA GRANDIFLORA for lining out.
4 to 8 ins. ..... $5.00 per 100; $40.00 per 1000
8 to 12 ins. ..... 6.00 per 100; 50.00 per 1000
Write for prices Crape Myrtle, 4 colors in 100 or 1000 lots.
G. A. McKEE NURSERY, Jacksonville, Tex.

QUALITY NURSERY STOCK AND SEEDS

	Per 100
Am. Arborvitae, 4 to 6-in. seedlings	$0.75
Douglas Fir, 2 to 4-in. seedlings	.75

Inquiries solicited. Wholesale price list free.
C. WILSON'S NURSERY, Pembine, Wis.

MAGNOLIA GRANDIFLORA, 1-yr., seedlings, bed field-grown. Moss packed, prepaid, 2 to 4 ins., per 100, $3.00; per 1000, $27.50; 4 to 8 ins., per 100, $5.00; per 1000 $47.50. Pyracantha Coccinea, hardy, orange-red berry, 1-yr., rooted cuttings, 4 to 10 ins., per 100, $5.00; per 1000, $45.00, prepaid.
HARWELL NURSERY, Van Buren, Ark.

SEEDS.
25,000 Sycamore Trees. 10,000 lbs. seeds: Kentucky Coffee Beans, per lb., 25c; Osage Orange, 50c; Sycamore Platanus, 25c; Ailanthus, 40c; Regels and Amur River North Privet, 60c; Catalpa, 50c. 100,000 8-in. cuttings, $1.75 per 1000.
SCHROEDER NURSERY CO., Granite City, Ill.

Azaleas, Camellias, Gardenias, Nandinas, Ligustrums, Junipers, Thuyas and many other items in lining-out and specimen sizes. Send for our list in color of highest-quality stock grown in this section.
BLACKWELL NURSERIES, INC.,
Semmes, Alabama.

CALIFORNIA PRIVET, heavy 2-yr., cut back, northern-grown, 3 to 4-ft. and 2 to 3-ft. grades at exceptionally low prices, to make room in our storage. Tell us how many and grade you desire. We'll surprise you on price.
C. R. BURR & CO., INC.,
Dept. A, Manchester, Conn.

EVERGREENS—ROOTED CUTTINGS.
Pyramidalis, Globosa, Woodwardia Globe, Siberian, Hoveyi, Lutea, Pisifera, Irish J., Pfitzer J., Savin J., Andorra J., Taxus Cuspidata, Taxus Cusp. Cap.
All well rooted cuttings, 5 to 7 ins.,
$6.00 per 100; $55.00 per 1000.
LAMPERT FLORAL CO., Xenia, O.

EVERGREEN BARGAINS.

	Per 100	Per 1000
Arborvitae Pyramidalis, 2-yr., well rooted	$6.00	$50.00
Berckmans Golden, rooted cuttings	6.00	50.00
Juniper Irish, 2-yr., well rooted	6.00	50.00
Taxus Cuspidata, 2-yr., well rooted	6.00	50.00

MORNING STAR NURSERY,
Onarga, Ill.

ROSA MULTIFLORA JAPONICA.
Seedlings and cuttings.
Seedlings straight shanked, strong rooted, well graded.
Cuttings well rooted, de-eyed and graded same as seedlings.
Seedlings, 3 to 4 mm. and 4 to 6 mm.
Cuttings, 3 to 4 mm. and 4 to 6 mm.
Low prices on reasonable quantities. Supply limited this year. Order now for later delivery and avoid disappointment.
C. R. BURR & CO., INC.,
Dept. A. Manchester, Conn.

LINING-OUT EVERGREENS

JUNIPER PFITZERIANA	Per 100	Per 1000
Rooted cuttings, 3 to 6 ins.	$ 5.00	$ 45.00
T. transplanted, 6 to 9 ins.	8.00	65.00
T. transplanted, 9 to 12 ins.	9.00	75.00
TT. transplanted, 9 to 12 ins.	12.00	100.00
TT. transplanted, 12 to 15 ins.	15.00	125.00
Juniper Tamariscifolia Transplanted, 6 to 9 ins.	8.00	65.00
Thuja Aurea Nana Transplanted, 4 to 7 ins.	8.50	75.00
TT. transplanted, 6 to 9 ins.	12.50	100.00

Many other varieties.
Ask for wholesale price list. Free Samples.
A. PASTOR WHOLESALE NURSERY
4013 Lennox Blvd. Inglewood, Cal.

SHADE TREES.

	Per 10	Per 100
Oak, Red, Scarlet and White 8 to 10 ft.	$25.00	$225.00
1½ to 2-in. Cal.	37.50	350.00
2 to 2½-in. Cal.	50.00	450.00
Oak, Pin, 2½ to 4-in. Cal.	75.00	650.00
Norway Maple, 3 to 3½-in. Cal.	35.00	300.00
Norway Maple, 3½ to 4 -in. Cal.	40.00	350.00
Norway Maple, 4 to 4½-in. Cal.	50.00	450.00
American Elm, 3 to 3½-in. Cal.	30.00	275.00

Write for prices on other varieties and sizes.
WAYNESBORO NURSERIES, Waynesboro, Va.

EVERGREEN TREE SEEDS.
Minnesota White Pine (Strobus), $1.00 per lb.
Minnesota Norway Pine (Resinosa), $4.85 per lb.
New crop now ready. List Free.
AYRES EVERGREEN NURSERIES, Aitkin, Minn.

SPECIMEN SURPLUS STOCK.		Each
Pfitzer Juniper (Perfect Shape)	36 to 42 ins.	$3.00
Virginiana Juniper	30 to 36 ins.	1.25
Andorra Juniper	30 to 36 ins.	1.30
Savin Juniper	24 to 30 ins.	1.65
Mugho Pine	15 to 18 ins.	1.75

Amur River North Privet, average 10 branches 36 to 42 ins., $75.00 per 1000.
American and Chinese Elm, up to 3½-in. cal., special quantity prices.
MERTEL NURSERY, Peru, Ill.

PERENNIALS YOU NEED

	Per 12	Per 100
WARLEY ROSE (Aethionema). Blooms resemble small Rose Daphne	$3.00	$18.00
ROSE UNIQUE (Dianthus alwoodi). Spicy, double bright pink	2.50	15.00
LAPHAMI (Phlox divaricata). Large fragrant lilac-blue (25 plants of one variety at 100 rate)	2.50	15.00

CORLISS BROS., INC., NURSERIES
326 Reynard Street Gloucester, Mass.

NEMATODE-RESISTANT PEACH SEED.

U.S.D.A. Introductions from India and China. Shalil and Yunnan 55885 and 55886. Harvesting now completed and orders being filled.

KIRKMAN NURSERIES,
P. O. Box 809, Tracy, Cal.

EVERGREENS—TRANSPLANTED.
Lining-out stock.

	Per 100	Per 1000
Juniper Andorra, 8 to 12 ins., T.	$10.00	$70.00
Juniper Irish 8 to 10 ins., T.	10.00	70.00
10 to 12 ins., T.	12.00	80.00
Juniper Pfitzeriana 8 to 12 ins., T.	10.00	80.00
10 to 12 ins., T.	15.00	120.00
Juniper Stricta 4 to 6 ins., T.	8.00	60.00
6 to 8 ins., T.	10.00	70.00
Retinospora Plumosa, 8 to 12 ins., T.	8.00	70.00
Spruce, Black Hill, 8 to 12 ins., T.	5.00	40.00
Taxus Cuspidata, 4-yr. 12 to 15 ins., T.	30.00	250.00

ONARGA NURSERY CO., INC.,
Onarga, Illinois

FINE LINING-OUT STOCK.

	25	100	1000
Azalea Amoena, hardy pink. 5 to 6-in. spread	$3.00	$ 8.00	$ 75.00
6 to 8-in. spread	3.00	10.00	.....
Taxus Cuspidata, Jap Yew. 4 to 6 ins., X	2.50	7.50	70.00
6 to 8 ins., X	3.00	9.00	80.00
8 to 10 ins., X	3.50	11.00	100.00
Rooted cuttings	....	3.50	30.00
Chinese Arborvitae. 6 to 8 ins., X	2.00	5.50	50.00
8 to 10 ins., X	2.50	6.50	60.00
10 to 12 ins., X	3.50	7.50	65.00
12 to 15 ins., X	4.00	8.50	80.00
Andorra Juniper. 4 to 5-in. spread	2.75	7.50	70.00
5 to 6-in. spread	3.25	8.50	.....
Scotch Pine, 8 to 10 ins., X	3.50	7.00	.....
10 to 12 ins., X	3.75	8.00	.....
12 to 15 ins., X	4.50	12.00	.....

Cash please.
ESHAM'S NURSERIES, Box A65, Frankford, Del.

LINING-OUT STOCK.

	Per 100
Boxwood (Dwarf dark green type) 2-yr., T., 9 to 12 ins.	$12.00
Boxwood Koreana, 2-yr., T., 9 to 12 ins.	10.00
Euonymus Carrierei, 1-yr., T., 9 to 12 ins.	6.00
Carrierei, from 2-in. band pots	4.00
Coloratus, 1-yr., T., beds	4.00
Coloratus, 1-yr., T., field-grown	6.00
Forsythia Spectabilis, 12 to 18 ins.	3.00
Hamamelis Vernalis, 2-yr., S., 6 to 9 ins.	4.00
(Winter Fl. Witchhazel), 9 to 12 ins.	5.00
Kolkwitzia Amabilis, May 1 delivery 2-in. pots	5.00
Ligustrum Ibota, 2-yr., S., 10 to 15 ins.	2.50
Lonicera Maximowiczi Sac., 12 to 18 ins.	4.00
(Triple Red Honeysuckle), 18 to 24 ins.	5.00
Pyracantha Lalandi, from 2½-in. pots, 10 to 15 ins.	10.00
Ribes Alpinum, T., 6 to 9 ins.	6.00
9 to 12 ins.	7.50
Spiraea Froebeli, T., 9 to 12 ins.	3.50
12 to 15 ins.	4.00
Syringa Microphylla (Everbearing Lilac), T., 10 to 15 ins.	15.00
Viburnum Tomentosum, 6 to 9 ins.	4.00
9 to 12 ins.	5.00

Write for special quantity prices. Also our complete wholesale Trade List of Small Fruit Plants, Ornamentals and Lining-out Stock.
W. N. SCARFF'S SONS, New Carlisle, Ohio.

500,000 Scotch Pine, Douglas Fir, Colo. Blue Spruce, other species, seedlings. For reason of labor shortage in transplanting, will sacrifice at 1 to 3 cents. Write for complete list.
SUNCREST EVERGREEN NURSERIES,
Johnstown, Pa.

Lining-out seedlings, 6 to 15 ins.: Hibiscus, A. Fruticosa, Ninebarks, 3c; Scotch Broom, 5c; Forsythia, Red Snowberry, Sweet Fern, Rose-acacia, S. Chenaulti: Flowering Almond, Hydrangea A. G., S. Sorbifolia, Kerria Fl. Pl., White and Lav. Lilac, 3c. Vines: Euonymus Coloratus, Am. & Or, Bittersweet, Trumpet Vine, Virgin's-bower Clematis, 3c; Hall's Honeysuckle, Woodbine, Myrtle, 1c. Perennials: Shasta Daisy, Gaillardia, Chives, Globe Thistle, Helenium, Stokesia, Thymes, Creeping Phlox, Hen-and-chickens, Sedums, 1c; Zebra, Eulalia, 5c; Festuca Glauca, 1c. Hundreds of others at give-away prices. Send want list or order from this ad.
HUNT'S NURSERY, R. 2, Mishawaka, Ind.

LINING-OUT EVERGREENS

Vitzer Juniper	Per 100
1-yr., rooted cuttings, 6 to 8 ins.	$ 6.50
Potted, 2¼-in. rose pots	10.00
Field-grown, TT, 9 to 12 ins.	15.00
Field-grown, TT, 12 to 15 ins.	22.50
English Juniper	
Field-grown, TT, 12 to 15 ins.	15.00
Ashford Juniper	
Field-grown, TT, 12 to 15 ins.	15.00
Polish Juniper	
Field-grown, TT, 8 to 10 ins.	12.50
Pyramidalis Arborvitae	
Field-grown, TT, 10 to 12 ins.	17.50

Shipment to states reciprocal with Illinois.
HENRY NURSERIES, Henry, Ill.

CLOSING OUT.
By Wisconsin Certified Nursery.
More than 10 million Evergreen Liners must be moved this spring. Liberal count. No packing charges.

Cash with order.	Per 100	Per 1000
American Arborvitae, 6-yr., T, 9 to 12 ins.	$5.00	$35.00
Jack Pine, 4-yr., T, 8 to 12 ins.	1.50	10.00
Jack Pine, 2-yr., S.	1.00	5.00
Norway Pine, 3-yr., T, 8 to 12 ins.	1.50	12.00
Norway Pine, 3-yr., S.	1.00	7.50
White Spruce, 6-yr., T, 14 to 20 ins.	2.50	20.00
White Spruce, 4-yr., T, 9 to 12 ins.	2.00	15.00
Black Spruce, 3-yr., T, 8 to 10 ins.	2.00	12.00
White Pine, 4-yr., T, 12 to 16 ins.	2.00	15.00
Siberian Pea, 10 to 12 ins.	2.00	....
Highbush Cranberry, 8 to 12 ins.	3.00	....
Hawthorn, 18 ins.	3.00	....

50 carloads of 5-yr. aired quality Peat, $150.00 per carload of 80 cubic yards. F.O.B. Hayward. Sample on request.
HAYWARD GREENHOUSE, Hayward, Wis.

SPECIAL OFFER, SPRING 1943.

	Each
Azalea Hinodegiri, rooted cuttings	$0.03
2¼ ins., ready May	.07½
1-yr., 3 to 5 ins.	.12
Ledifolia Alba, 2¼ ins., ready May	.08
Cornus Florida, 1-yr., S., 12 to 18 ins.	.02
4-yr., branched, 2 to 3 ft.	.20
4-yr., branched, 3 to 4 ft.	.30
Leucothoe Catesbaei, 4-yr., br., 9 to 12 ins.	.30
4-yr., branched, 6 to 9 ins.	.20
Taxus Capitata, upright	
3-yr., 9 to 12 ins., heavy	.20
3-yr., 6 to 9 ins., heavy	.15
Taxus Cuspidata, spreading	
1-yr., transplants, 6 to 9 ins.	.08
2-yr., transplants, 9 to 12 ins.	.12
3-yr., transplants, 10 to 15 ins.	.18
4-yr., transplants, 12 to 18 ins.	.25

Write for complete list of bargains.
DEERFIELD NURSERIES
Deerfield Street P. O., N. J.

LINING-OUT STOCK
Transplants—2-yr. field-grown

Chamaecyparis Obtusa	Per 100
Crippsi, 12 to 15 ins.	$35.00
Gracilis, 12 to 15 ins.	35.00
Gracilis Nana, 6 to 8 ins.	45.00
Euonymus Rad. Carr., 12 to 15 ins.	18.00
Rad. Variegatus, 12 to 15 ins.	18.00
Rad. Vegetus, 8 to 10 ins.	12.50
Rad. Vegetus, 10 to 12 ins.	15.00
Rad. Vegetus, 12 to 15 ins.	18.00
Rad. Vegetus, 15 to 18 ins.	22.50
Juniper Ch. Columnaris, 12 to 15 ins.	35.00
Ch. Pfitzeriana, 12 to 15 ins.	30.00
Ch. Sargenti, 10 to 12 ins.	35.00
Excelsa Stricta, 10 to 12 ins.	30.00
Japonica, 8 to 10 ins.	30.00
Vir. Canaerti, 12 to 15 ins.	35.00
Vir. Glauca, 12 to 15 ins.	35.00
Vir. Keteleeri, 12 to 15 ins.	35.00
Thuja Occ. Pyramidalis, 18 to 24 ins.	35.00
Occ. Wareana, 12 to 15 ins.	30.00
Or. Aurea Nana, 10 to 12 ins.	30.00
Or. Elegantissima, 12 to 15 ins.	30.00
Transplants from bed.	
Chamaecyparis Pisifera	
Plumosa, 10 to 12 ins.	15.00
Plumosa Aurea, 10 to 12 ins.	15.00
Juniper Squamata Meyeri, 8 to 10 ins.	15.00
Pinus Thunbergi, 6 to 8 ins.	15.00
Thunbergi, 18 to 24 ins.	25.00
Taxus Cuspidata, 6 to 8 ins.	18.00
Media Hatfieldi, 8 to 10 ins.	18.00
Media Hicksi, 8 to 10 ins.	18.00
Thuja Occident. Nigra, 12 to 15 ins.	15.00
Tsuga Canadensis, 12 to 15 ins.	15.00

All the above are Bare Root, boxing at cost.
Cash with Order.
BOULEVARD NURSERIES, Newport, R. I.

PINK DOGWOOD	Per 10	Per 100
12 to 18 ins.	$4.50	$35.00
18 to 24 ins.	5.50	45.00
2 to 3 ft.	8.50	70.00
3 to 4 ft.	12.50	100.00
White Dogwood, double-flowering.		
12 to 18 ins.	5.00	40.00
18 to 24 ins.	7.50	65.00
2 to 3 ft.	12.50	100.00
Dogwood, Welchi, tricolored foliage, white flowers.		
12 to 18 ins.	6.00	50.00
18 to 24 ins.	7.50	65.00
Washington Thorns.		
3 to 4 ft.	6.00	50.00
4 to 5 ft.	7.50	70.00
5 to 6 ft.	10.00	90.00
6 to 8 ft.	20.00	....

KINGSVILLE NURSERIES, INC.,
H. J. Hohman, Kingsville, Md.

SHRUBS—Miscellaneous.	Per 10	Per 100
Barberry, Redleaf		
15 to 18 ins., heavy	$2.00	$15.00
18 to 24 ins., heavy	2.50	20.00
Bush Honeysuckle, 3-yr., 2 to 3 ft.	1.75	15.00
Buddleia, assorted varieties, 2-yr.	2.25	20.00
Coralberry Chenaulti, 2 to 3 ft.	1.25	10.00
Coralberry Chenaulti, 3 to 4 ft.	1.75	15.00
Forsythia, 3 to 4 ft.	2.25	20.00
Hawthorn, 3 to 4 ft.	4.00	35.00
Hawthorn, 4 to 5 ft.	6.50	60.00
Philadelphus Coronarius, 3 to 4 ft.	2.00	17.50
Philadelphus Coronarius, 4 to 5 ft.	3.00	25.00
Pearlbush, 3 to 4 ft.	2.25	20.00
Pearlbush, 4 to 5 ft.	3.50	30.00
Pussy Willow, 3 to 4 ft.	2.00	15.00
Pussy Willow, 4 to 5 ft.	3.50	30.00
Viburnum Tomentosum, 3 to 4 ft.	4.00	35.00
Viburnum Tomentosum, 4 to 5 ft.	6.50	55.00
White Fringe, 3 to 4 ft.	3.50	30.00
White Fringe, 4 to 5 ft.	5.00	45.00
Winterberry, 4-yr., 2 to 3 ft.	3.50	30.00
Winterberry, 5-yr., 3 to 4 ft.	5.00	45.00

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IT'S AMERICAN TO WANT THE BEST!
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New Summer-flowering:	Per 12	Per 100
*DEAN KAY IMPROVED Lovely rose-pink	$2.50	$15.00
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New September-flowering Pompon Cushions:		
Sept. Bronze—Bronze and gold	2.25	13.50
Sept. Cloud—White and yellow	2.25	13.50
Sept. Gold—Bright yellow	2.25	13.50
Popular varieties:		
Amelia Bronze—Good bronze cushion	1.00	6.00
Amelia Pink—Orchid-pink cushion	1.00	6.00
Amelia New Red—Fine brilliant red	1.50	10.00
Amelia White—Ivory-white cushion	1.00	6.00
Autumn Lights—Coppery-bronze	1.25	8.00
Sunny Boy—Tall yellow pompon	1.00	6.00

We ship only clean, strong rooted cuttings.
Order now to insure early delivery.
Orders filled in strict rotation.
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LINING-OUT STOCK.
Carefully propagated, well rooted, selected plants which have received a good start in life. Field-grown and outdoor frame-grown.
Per 1000 at 10 per cent less than per 100.

	Per 100
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Baker Hybrid, rooted cuttings	$ 7.00
Baker Hybrid, 2½-inch pots	10.00
Baker Hybrid, field	12.00
Berckmans Golden, rooted cuttings	7.00
Berckmans Golden, 2½-inch pots	10.00
Berckmans Golden, field	12.00
Bonita, rooted cuttings	7.00
Golden Bonita, rooted cuttings	7.00
Goldspire, rooted cuttings	7.00
Ramsey Hybrid, rooted cuttings	6.00
Junipers.	
Ashford, field	8.00
Pyramidal, field	12.00
Pfitzer, rooted cuttings	7.00
Pfitzer, 2½-inch pots	10.00
Pfitzer, field	12.00
Procumbens, rooted cuttings	8.00
Procumbens, field	12.00
Spiny Greek, rooted cuttings	8.00
Sylvestris, field	10.00
Sylvestris, rooted cuttings	8.00
Virginalis, rooted cuttings	8.00
Von Ehron, rooted cuttings	7.00
Von Ehron, 2½-inch pots	10.00
Von Ehron, field	12.00
Broad-leaved.	
Boxwood, B. Sempervirens, rooted cuttings	5.00
Boxwood, B. Sempervirens, field	7.00
Black Gum, seedlings	2.00
Black Gum, seedlings, field	4.00
Dogwood, seedlings, white	2.00
Euonymus Radicans, field	5.00
Euonymus Patens, field	6.00
Mahonia Bealei, 2½-inch pots	10.00
Pyracantha Atalantoides, rooted cuttings	5.00
Pyracantha Lalandi, rooted cuttings	5.00
Sumac, Rhus Virens, rooted cuttings	5.00
Chinese holly, Burfordi.	
6 to 8 ins.	8.00
8 to 12 ins.	14.00
12 to 15 ins., 4½-inch pots	18.00

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ROSE MULTIFLORA JAPONICA
Top-quality understocks
suitable for Grafting or Budding
1-year rooted, de-eyed cuttings, thornless, West Coast-grown.
¼ -inch .....$18.00 per 1000
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CONIFEROUS EVERGREENS.

	Per 100	Per 1000
BIOTA Aurea Conspicua:		
2¼-in. pots	$15.00	$120.00
BIOTA Aurea Nana:		
Rooted cuttings	8.00	60.00
2¼-in. pots	10.00	90.00
6 to 9 ins., field-grown	15.00	120.00
BIOTA Aurea Nana Globosa:		
Rooted cuttings	8.00	60.00
2¼-in. pots	10.00	80.00
BIOTA Baker:		
Rooted cuttings	8.00	60.00
2¼-in. pots	10.00	80.00
BIOTA Beverleyensis:		
2¼-in. pots	10.00	80.00
9 to 12 ins., field-grown	12.00	100.00
BIOTA Bonita:		
Rooted cuttings	8.00	60.00
2¼-in. pots	10.00	80.00
BIOTA Excelsa:		
Rooted cuttings	8.00	60.00
2¼-in. pots	10.00	90.00
BIOTA Howardi:		
Rooted cuttings	8.00	60.00
2¼-in. pots	10.00	80.00
BIOTA Ramseyi:		
2¼-in. pots	10.00	80.00
BIOTA Rosedale:		
Rooted cuttings	6.00	50.00
4 to 6 ins., field-grown	8.00	60.00
CUPRESSUS Worthiana (hardy Italian Cypress):		
Rooted cuttings	8.00	60.00
6 to 8 ins., 2¼-in. pots	10.00	80.00
JUNIPERUS Pfitzeriana:		
Rooted cuttings	8.00	60.00
2¼-in. pots	10.00	80.00
2½-in. pots	12.00	100.00
JUNIPERUS Pfitzeriana Aurea:		
Rooted cuttings	8.00	60.00
JUNIPERUS Communis Kiyonoi:		
2¼-in. pots	12.00	100.00
JUNIPERUS Japonica Procumbens:		
2¼-in. pots	10.00	80.00
JUNIPERUS Sabina:		
2-in. pots	9.00	70.00
JUNIPERUS Sabina Horizontalis:		
2-in. pots	9.00	70.00
4 to 6 ins., transplanted	10.00	90.00
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2¼-in. pots	10.00	80.00
JUNIPER, Spotted:		
2¼-in. pots	10.00	90.00
RETINOSPORA Plumosa:		
2¼-in. pots	10.00	80.00
RETINOSPORA Squarrosa Veitchi:		
2¼-in. pots	10.00	
THUJA Occidentalis Elegantissima:		
2¼-in. pots	10.00	80.00
THUJA Occidentalis Globosa:		
2¼-in. pots	10.00	80.00
THUJA Occidentalis Wareana:		
2¼-in. pots	10.00	80.00
BROAD-LEAVED EVERGREENS.		
ABELIA Grandiflora:		
Rooted cuttings	4.00	30.00
BUXUS Sempervirens:		
Rooted cuttings	6.00	50.00
4 to 6 ins., transplants	9.00	70.00
EUONYMUS Japonica, Golden:		
Rooted cuttings	5.00	40.00
EUONYMUS Patens:		
Rooted cuttings	4.00	30.00
JASMINE, Humile:		
Rooted cuttings	4.00	30.00
LEUCOPHYLLUM Texanum:		
2¼-in. pots	10.00	80.00
LIGUSTRUM Lucidum Compactum (Wax):		
Rooted cuttings	5.00	40.00
2¼-in. pots	8.00	70.00
NANDINA Domestica:		
4 to 6 ins.	10.00	80.00
6 to 9 ins., transplants	12.00	100.00
9 to 12 ins., transplants	15.00	120.00

BAKER BROS. NURSERY,
Box 828, Fort Worth, Tex.

(TURN THE PAGE.)

SPECIAL SURPLUS LIST.

	Per 100
Buffaloberry (Shepherdia Argentea), 3 to 4 ft.	$12.00
Buddleia Charming, 2 to 3 ft.	12.00
Euonymus American, 2 to 3 ft.	15.00
European, 5 to 6 ft.	35.00
Carrierei, 1-yr., field-grown	8.00
Coloratus, 2-yr.	12.00
Coloratus, 1-yr., field-grown	8.00
Forsythia Spectabilis, 2 to 3 ft.	12.00
Suspensa, 3 to 4 ft.	18.00
Hamamelis Vernalis, 2 to 3 ft. (Winter Fl. Witchhazel)	20.00
Lonicera Tatarica Rubra, 4 to 5 ft.	20.00
Prunus Tomentosa, 18 to 24 ins.	10.00
(Nanking Cherry), 2 to 3 ft.	12.50
Spiraea Froebeli, 30 to 36 ins.	22.00
Arguta, 3 to 4 ft.	20.00
Snowberry Chenaulti, 3 to 4 ft.	15.00
Vulgaris, 3 to 4 ft.	12.00
Tamarix Hispida, 2 to 3 ft.	10.00
3 to 4 ft.	12.00
Bittersweet Vine, 3-yr.	12.00
Halls Honeysuckle, 2-yr.	8.00
	Each
Bolleana Poplar, 8 to 10 ft.	.75
American Sycamore, 8 to 10 ft.	1.25
White Fl. Dogwood, 5 to 6 ft.	1.00

Write for complete price list of Small Fruits, Ornamentals and Lining-out Stock.
W. N. SCARFF'S SONS,
New Carlisle, Ohio.

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STRONG WOODEN STAKES, 3 ft., $2.75; 4 ft., $3.75; 5 ft., $4.75; 6 ft., $6.00 per 100.
Freight prepaid in quantities of 5,000.
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PEAT MOSS.
50 carloads of 5-yr. aired, quality Peat. $150.00 per carload of 80 cubic yards.
F.o.b. Hayward, Wis. Sample on request.
HAYWARD GREENHOUSE, Hayward, Wis.

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Where else will you find so convenient and cheap a sales medium? This is the time to make use of it, when you want cash to pay expenses, taxes, etc.! Don't let stock grow to unsalable size, when there's a way to move it now.

Send your copy (count 6 average words to line) for the next issue to reach us by **March 25.**

AMERICAN NURSERYMAN
508 S. Dearborn St.
CHICAGO, ILL.

CARE WITH FERTILIZERS.

Inability to obtain the usual fertilizers containing chemical nitrogen will turn some growers to the use of animal manures and other products.

Stable manure is less easily obtained than in other days, and increasing use has to be made of other sources of soil fertility. Other home products available to nurserymen are poultry droppings, wood ashes and soot, and while these are often employed they are not always used in such a form as to obtain the best results.

Poultry droppings are a rich forcing manure, but they need proper preparation. This entails collection and storage in a dry shed with alternate layers of soil for several months or even a year. After this period of storage the heap will be in a dry and almost inodorous powdered mass, which can be satisfactorily employed without risk of burning the plants.

Soot is a source of valuable ammonium compounds that also needs to be stored before use in order that its fiery qualities may be dispersed. Freshly swept soot is liable to burn delicate foliage and it should, therefore, be weathered in a dry shed for a few months.

Wood ashes contain a proportion of carbonate of potash, a highly soluble form, and are, therefore, valuable. Wood ashes, with which may be included all thoroughly burned remains of the nursery rubbish heap, should never be left out in the rain, as one night's rain will be sufficient to wash out of them most, if not all, their potash content. When it is considered that, according to the proportion of wood burned, as much as eleven per cent of essential plant food may be contained in the residue from the fire, it will be realized how valuable wood ashes may be.

It will be seen that a measure of understanding is necessary to get the best out of what may be termed home-produced fertilizers, but even more care and knowledge are required in the case of chemical fertilizers. For instance, reaction between chemicals takes place between some ingredients when they are mixed together in the soil, and from a cultivation point of view this in some cases may be a bad mixture. In such instances definite loss of fertilizing value is experienced.

To state a case in point, basic slag or lime should not be used near soot or guano, or any other fertilizer containing ammonium salts, because of the chemical reaction which turns the ammonium into gas, which is then dissipated into the air and lost. Again, if nitrate of soda is mixed with anything else it may easily form a hard mass which will be difficult to spread and amalgamate with the soil.

Superphosphates also present a problem to those with little or no knowledge of their reaction. If mixed with nitrate of soda, oxides of nitrogen will be given off, resulting in the reversion of the superphosphate. Reversion of the soluble phosphate also takes place if superphosphates are mixed with lime or basic slag.

The composition and right application of fertilizers are well worth a little

"The art of getting riches consists very much in thrift. All men are not equally qualified for getting money, but it is in the power of every one alike to practice this virtue."

We can't all buy War Bonds every market day, but we can all buy stamps and save toward a War Bond.

U. S. Treasury Department

WANT ADS
Help and Situation Wanted and For Sale advertisements.
$2.25 per inch, each insertion.

HELP WANTED
Capable man with nursery experience in propagating, selling and management, for good opening with modern landscape and nursery firm. State qualifications fully and salary desired. Address No. 255, American Nurseryman, 508 S. Dearborn St., Chicago.

HELP WANTED
Experienced tree climbers and landscape foreman — steady, with high wages. Write age, experience, draft classification and salary expected. OSCAR F. WARNER, Waterbury, Conn.

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KEMP *Power*
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508 S. Dearborn St. Chicago, Ill.

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See knots sailors are tying!

Ask for FREE Book, "Knots Sailors Use." 79 pictures. Good pointers on knots.

Write for details and prices on Nursery Twines.

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EFFECTIVE FUMIGANT
DOW
METHYL BROMIDE
FOR NURSERY AND GREENHOUSE PLANTS
THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

study, for even a limited knowledge of the subject may be an advantage. Manufacturers of chemical fertilizers are always ready with help and advice regarding quantities, time and method of application, and for the home-produced manures the nurseryman can well be guided by experience, which is a first-class teacher.

DUSTING SAVES LABOR.

Spraying has become the accepted method for applying insecticides and fungicides to orchard crops because it provides the best all-around protection with the least amount of material, but dusting, which requires about one-fourth as much labor as spraying, will receive increased attention the coming year.

There is at present no complete dust program that can be recommended for the effective control of both insects and diseases. The ideal procedure, especially in large plantings, is to use both spray and dust equipment to supplement each other, but there are many factors to be considered to do this economically and effectively. Greater speed of application, thus permitting more timely treatment, is one factor in favor of dusting over spraying, especially in the control of apple scab. Dusting machinery is lighter than spraying equipment and can be moved over soft ground in the early spring with greater ease. Also, in dry seasons, a shortage in the water supply may make spraying less convenient.

Dusts, on the other hand, are not yet so effective against certain orchard pests as are sprays. This is true particularly of the codling moth. Dusts do not stick so well as sprays, and the cost of materials is higher for a dust program than for a spray program. Improvements are being made in dust preparations, however, and in dusting equipment which may offset some of the disadvantages of dusting.

RETAIL bookings and landscape plantings contracted are several times greater than at this date in any previous year, reports Frank J. Richards, Jr., of Richards' Gardens, Fort Collins, Colo. Like many others, he expects more work this spring than he can handle. A heavy wet snow the last week in February was a welcome change from the too dry, too warm and too windy weather of the preceding six weeks. "Inquiries from our small advertisement in the American Nurseryman are coming in steadily," adds Mr. Richards.

Make your store
VICTORY GARDEN HEADQUARTERS

1. **Help your customers grow bigger, better vegetables.**
2. **Help win the vital battle of food.**
3. **Help yourself to fast, easy volume sales.**

It's no military secret that every community in America is going to be Victory Garden "conscious" this year! Make it your responsibility to see that your customers grow good Victory Gardens . . . get the best yield and the most nutritious, flavorful vegetables possible. Be Victory Garden **Headquarters.**

You'll be expected to give important advice, for instance, on **"correct feeding."** Naturally, that means you'll want to recommend Vigoro Victory Garden Fertilizer. Made by Swift & Company this complete plant food supplies all the food elements growing things need from soil . . . gets the kind of results that incomplete plant foods just can't get. It is sanitary, odorless, easy to apply and economical.

We've had experts prepare an interesting give-away booklet, **"How to Make a Better Victory Garden."** Your customers will be asking for it, so get your supply now. Ask your Swift representative too, for free, dominating tie-in material (window poster shown above) or write direct.

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CUT PLANT LOSSES

For windbreaks and for protection against excessive sun and rain, Dandux Canvas is No. 1 choice of many leading nurseries. Stock covers and tarpaulins do most jobs, but we're equipped to produce special screens and covers to meet your individual needs.

Our own duck mill and our national organization assure you low cost, dependable service.

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Book A. Illustrates in full color 235 standard nursery items, brief description, substantially bound. Price in small lots, 75c each.

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Nicely illustrated, 48 pages and cover. 18c each in small lots.

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A pocket-size 48-page booklet. Very complete but concise information, well illustrated. Helpful in preventing claims for dead stock that cost nurserymen money. Sample, 10c. Write for discounts on quantities.

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HIGH-PRESSURE SPRAY HOSE
ANY PRESSURE TO 1000 LBS.—ANY LENGTH
Sizes—5/16" - 7/16" - 1/2" - 3/4". Also
3/4" - 7/16" - 1/2" and 3/4" High-Pressure Couplings
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Write for prices, samples and other information.
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Nursery Spades, Knives and Pruning Shears, Budding and Grafting Supplies, Tree Surgery and Lawn Equipment.
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Piqua, Ohio

TREE PEDDLER CAUGHT.

A tree peddler was brought into court at St. Louis, Mo., last month for selling box elder trees for magnolias to a west-end citizen. The peddler evidently did not keep a good record of his various transactions, as he made the mistake of calling upon the same individual two successive years. This peddler, who is a negro, terms himself a landscape gardener. He made a similar sale of four trees at $1 each at the same place just a year ago. All the trees grew, but when they failed to produce the expected blooms of the magnolia, the customer called in the state plant inspector, who identified the trees as box elder. When the peddler made the second call, the victim called the police, who promptly arrested the salesman, as a charge had been placed against him by the state inspector for selling uninspected nursery stock and operating without a nursery dealer's license. The court imposed a stiff fine with a workhouse sentence.

NEW PLANT PATENTS.

New plant patents recently issued included the following, according to Rummler, Rummler & Davis, Chicago patent lawyers:

No. 566. Rose plant. R. L. Byrum, Richmond, Ind., assignor to Joseph H. Hill Co., Richmond, Ind. A new and distinct variety of rose plant, characterized as to novelty by its habit of upright, much-branched growth, firmness of wood of stems and branches; heavy, leathery texture of foliage growing out stiffly from stems and possessing high disease resistance, and novel color, petal texture and quality of blooms.

No. 567. Peach tree. George R. Fowler, Marlboro, N. Y. A new and useful variety of peach tree, characterized particularly by its hardiness and vigor; its late maturity, and its prolific production of uniformly large freestone fruit with firm but juicy flesh, unusual flavor and tough skin, which is highly colored and practically fuzzless.

No. 568. Hypericum. John J. Grullemans, Painesville, O., assignor to the Wayside Gardens Co., Mentor, O. A variety of hypericum characterized by its exceptional hardiness, the recurvation of the wood creating a mound-like and semiweeping appearance of the plant as a whole; the reflexure and recurvation of the petals of each flower, and the large number of conspicuous stamens, and further characterized by the rich color of the individual flowers, the exceptional floriferousness of the plant and the manner in which the flowers are borne; the unusual color of the seed carpels; the large number of flowers in bloom concurrently, and the lasting quality as cut flowers.

No. 569. Rose plant. Paul De Vor, Pleasanton, Cal., assignor to Jackson & Perkins Co., Newark, N. Y. A new and distinct variety of polyantha rose plant, characterized predominantly as to novelty by the unusual coloring of its flowers, which are straw-yellow in the unfurling bud and barium yellow in the opening flower, fading almost to clear white when fully open, as compared with the varying pink of its variety.

No. 570. Strawberry plant. Brooks D. Drain, Knoxville, Tenn., assignor to the University of Tennessee Research Corp., Knoxville, Tenn. A healthy, prolific, fruiting strawberry plant variety characterized by subacid, well flavored fruits which are medium red throughout, and by the development of a large number of runner plants.

A. L. LANGLOIS, who operated the Mother Earth Nursery & Landscape Service, Port Huron, Mich., has gone out of business because of long illness with angina.

No Priorities Required

C. P. O.—The safe spreader for better control of Lace Bug, Red Spider, Juniper Scale, Lilac Scale, Pine Leaf Scale, Spruce Gall Aphid.
CRYSTAL BORER REPELLENT
For most species of borers on deciduous trees. Apply as protective measure. Used by leading tree companies.
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A scientific wax emulsion. Can be applied with spray equipment. Retards and reduces loss of moisture. Permits transplanting out of season.
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SUPPLIES —TOOLS

***For* Tree Surgeons Landscape Men Nurserymen - Growers**
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AMERICAN FLORIST SUPPLY
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ATTENTION NURSERYMEN!
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IMP. SOAP SPRAY
Use 1 part with 25 to 40 parts of water
Ask your nearest seedsman, or write for literature.
THE AMERICAN COLOR AND CHEMICAL CO.
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GENUINE MOSS PEAT
Hydraulic pressed bales and smaller resale packages. Sphagnum Moss, Cultivated Peat Humus.
Shipped from Northern plant at Floodwood, Minn., and Hanlontown, Iowa. Annual capacity 1,000 carloads.
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Write or wire for quotations.
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MICHIGAN PEAT
The **HIGH NITROGEN PEAT** which saves you labor, fertilizer and money!! Not all 100-lb. bags are the same. Our 100-lb. bag is huge and gives you more for your money. Worth the few cents difference.
COMPARE — ORDER MICHIGAN PEAT TODAY! Each
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Carlots, bulk, 80 cubic yards, $2.75 yard.
F.O.B. Plant, CAPAC, MICH.
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BETTER BUY YOUR CLOVERSET POTS NOW

YOU MAY NOT BE ABLE TO GET THEM LATER

Shortage of supplies, shortage of labor and transportation difficulties may greatly affect our production of Cloverset Pots. Therefore, we caution our customers to get their pots now and be prepared for the biggest cash-and-carry business ever known.

Modernize Your Nursery

Sell Your Nursery Stock Planted and Growing In

Patent No. 2073695

Cloverset Pots

Which would you prefer?

Offer your Nursery Stock to your customers planted and growing in Cloverset Pots in Full Foliage and in Full Bloom when it will look more attractive and bring the Most Money, therefore More Profit

CLOVERSET POTS OFFER YOU THE FOLLOWING ADVANTAGES OVER OLD-FASHIONED CLAY POTS—No loss from breakage. Weight only 1-16th of the weight of same capacity clay pots. Low price, may be given away with the plant. Non-porous, only ½ as much water is required to sufficiently supply the plant. Easy to remove from the plant by the purchaser. Convenient to use by the grower. Practical in shape with 2 times the soil capacity of same sizes clay pot. Wide base prevents falling over in display gardens.

AND GREATEST OF ALL, your stock can be sold and safely transplanted without wilt of foliage or blooms any time from spring till freezing weather. No more expensive dormant plants need be thrown away after the spring planting season is over. If your potted plants are not sold in the spring you can sell them during the following summer and fall, or they can be carried over and be sold the following spring and summer and as they grow and develop in the pots they bring a greater price and profit.

THE POT FULL OF PROFIT

STANDARD HEAVY CLOVERSET POTS

For the nurseryman who maintains a sales yard throughout the entire Spring, Summer and Fall and offers his goods in full foliage and, in season, in full bloom.

F. O. B. KANSAS CITY—Terms Cash

Orders for 300 pots or more take 1000 pot price. Orders for less than 300 pots take 100 pot price.

No.	Height	Diam. Top	Bottom Diam.	Soil Capacity	Corresponding Size Clay Pot	Weight Per 100	Per 100	Per 1000
0	5 ins.	5 ins.	4½ ins.	3½ lbs.	6 ins.	35 lbs.	$2.50	$22.50
1	6½ ins.	6 ins.	5½ ins.	9 lbs.	7 ins.	41 lbs.	4.00	35.00
2	9½ ins.	7 ins.	6½ ins.	15 lbs.	8 ins.	77 lbs.	4.50	40.00
3	9 ins.	8 ins.	7½ ins.	20 lbs.	9 ins.	88 lbs.	5.00	45.00

No. 0 FOR PERENNIALS AND FOR GREENHOUSE USE. No. 1 FOR PERENNIALS. No. 2 FOR ROSES AND SHRUBS. No. 3 FOR LARGE SHRUBS AND TRANSPLANTING. CLOVERSET POTS TAKE 3RD CLASS FREIGHT RATE. PACKED 100 IN CARTON READY FOR USE. SAMPLE CARTON SHOWING ALL SIZES WILL BE MAILED ON RECEIPT OF 25 CENTS TO PAY MAILING CHARGES.

SPECIAL LIGHT CLOVERSET POTS

For the nurseryman who maintains a sales yard during only the spring selling season and the fall planting season and who does not maintain his sales yard throughout the hot summer months.

In addition to our regular line, as described above, we make three sizes of our Cloverset Pots out of a lighter material, they being No. 0, No. 1 and No. 2. When pots are wanted for only the spring season's use, we think these light pots, which we call Special Light Cloverset Pots, will be amply strong enough and durable enough for general purposes. They will be packed 100 in a carton and they weigh just one-third as much as the Standard Cloverset Pot. On these Special Light Cloverset Pots the following prices will be effective.

PRICES ON SPECIAL LIGHT CLOVERSET POTS

No.	Height	Diam. Top	Bottom Diam.	Soil Capacity	Corresponding Size Clay Pot	Weight Per 100	Per 100	Per 1000
0	5 ins.	5 ins.	4½ ins.	3½ lbs.	6 ins.	15 lbs.	$2.00	$18.50
1	6½ ins.	6 ins.	5½ ins.	9 lbs.	7 ins.	18 lbs.	3.00	27.50
2	9½ ins.	7 ins.	6½ ins.	15 lbs.	8 ins.	33 lbs.	3.75	35.00

Orders for 300 pots or more take 1000 pot price. Orders for less than 300 pots take 100 pot price.

CLOVERSET POTS WILL HELP YOU GROW BETTER PLANTS

A plant grown in a Cloverset Pot means a better plant, which means a better satisfied customer, which means a larger business, which means more profit. Try Cloverset Pots. We promise you they will not disappoint you.

ERNEST HAYSLER & SON -:- CLOVERSET FLOWER FARM

105th Street and Broadway, Kansas City, Missouri

WILL YOU BE ABLE TO FILL THE ORDER?

IF THE WAR ENDED TOMORROW, 1,015,000 FAMILIES INTEND TO BUILD OR BUY A NEW HOME WITHIN SIX MONTHS AFTER THE END OF THE WAR! This is a figure determined from surveys made by the United States Chamber of Commerce.

If each of these new home owners buys but one Evergreen tree, the nursery trade will need to do some looking around to fill the order. Nurserymen cannot supply finished nursery stock for this postwar need, unless they keep up and increase their plantings.

Unlike other industries which will benefit from the postwar needs, nurseries must look several years into the future. If they take this forward look with confidence, expecting to be in business and to carry on profitably, they must keep up a reasonable amount of planting.

Many nurserymen realize this, and for this reason have plans for substantial planting this season. However, there will be business for all, so each nurseryman in his own community should prepare.

We have a good assortment of many choice items, Yews and Junipers in particular, and we would be very glad to quote on stock for you.

If you do not have a copy of our recent wholesale price list and our dealer's descriptive catalogue, please call on us.

The Hill Nursery is a dependable source of supply for Evergreens for leading nurserymen everywhere.

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Evergreen Specialists — *Largest Growers in America*

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